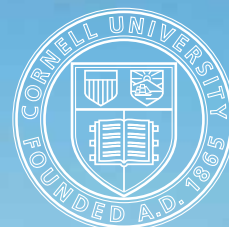


Zweig NEWS



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

No. 55 June 2013

Soothing fraying nerves

The Harry M. Zweig Memorial Fund committee has selected equine surgeon Dr. Jon Cheetham as the first Zweig Research Scientist, a new position for junior faculty at Cornell's College of Veterinary Medicine who show promise and productivity in equine research.

Awarded in December 2012, the yearlong position will fund Cheetham's research into diagnosing and treating recurrent laryngeal paralysis, commonly known as roaring. Horses with this condition have developed weakened airway nerves and muscles and cannot breathe fully during exercise. Unfound and untreated, it can quickly end a horse's career.

Cornell's animal hospital is currently using the fruit of Cheetham's past roaring research to help patients. Clinics now use the trans-esophageal ultrasound, a technique Cheetham developed to evaluate the geometry of horse's airway muscles during rest and exercise. This technique allows clinicians to find roaring in young horses early, giving them a chance to recover.

Now Cheetham has turned his focus to improving the odds for that chance. His current project focuses on reimagining the nerve graft, a technique that takes a healthy nerve from neck muscles and puts it onto a damaged nerve to stimulate neglected muscles and help them recover.

"Nerve grafting has been around awhile, but it's slow," said Cheetham. "Currently you directly implant a healthy nerve into atrophied muscle, but only part of the muscle heals and it takes a long time. We're working to develop a new, faster, better nerve graft method."

With strong preexisting data supporting the concept, Cheetham will use his time as Zweig Research Scientist to develop a new method of enhancing nerve grafts. He has started pioneering research into extracellular matrix scaffolds, an area that has not been well explored.

"Our goal is to develop a way to manipulate the micro environment at a nerve repair site to promote healing," said Cheetham. "I'm delighted to have this opportunity from the Zweig Fund to help expand healing options in horses suffering from roaring."



INSIDE: NEW DEAN FOR RESEARCH

4 NEW MEMBERS JOIN ZWEIF COMMITTEE
5 EQUINE SEMINAR AT ZWEIF TROT



2013 Research Awards

New

\$134,000 to Dr. Thomas Divers with Dr. Bud Tennant for "Etiology and Prevention of Equine Serum Hepatitis (Theiler's Disease)"

\$46,412 to Dr. Lisa Fortier for "Cellular Biomarkers of Early Cartilage Injury Measured with Multiphoton Imaging"

\$80,147 to Dr. Alan Nixon for "Osteoarthritis Control Through Combinatorial Stem Cell Therapy"

Continued

\$50,302 to Dr. Lisa Fortier for "Identification of the Optimal Biologic to Enhance Endogenous Stem Cell Recruitment and Homing for Facilitated Musculoskeletal Tissue Regeneration"

\$69,003 to Dr. Tracy Stokol for "The Role of Platelets in the Pathogenesis of Equid Herpes Virus type-1 Infection"

\$68,875 to Dr. Bettina Wagner for "A Novel Strategy to Boost Antibody Production to EHV-1 in Neonates"

Revised / Renewed

\$45,828 to Dr. Dorothy Ainsworth with Dr. Samantha Brooks for "Fine Mapping of Candidate Genes Contributing to Equine Left Recurrent Laryngeal Neuropathy (RLN)"

\$100,000 to Dr. Douglas Antczak with Dr. Rebecca Tallmadge and Dr. Nikolaus Osterrieder for "T-Cell Mediated Immunity and Vaccine Development in Horses"

\$96,977 to Dr. Norman Ducharme with Brian Brown for "An Exploratory Study into the Practical Application of Regenerative Medicine Approach to Reconstruction of the Equine Upper Airway"

\$173,529 to Dr. Bettina Wagner with Dr. Gillian Perkins for "Innate Immune Mechanisms and T-Cell Responses to Equine Herpesvirus Type 1 in Latently Infected and Naïve Horses"



Zweig Memorial Trot 2013

Vernon Downs, Vernon, N.Y.

Sunday, August 25, 2013

Post Time: 6:45pm

New Dean for Research and Graduate Education

Please welcome

Dr. Joel Baines as the College's

Associate Dean for Research and Graduate Education.

With the title comes new responsibilities for the James Law Professor of Virology. As the associate dean, he oversees the doctoral program at the College of Veterinary Medicine; the Veterinary Investigators' Program for veterinary students seeking research experiences; and several advanced training programs for clinicians, including the Clinical Fellows Program. He also directs efforts to help scientists secure external funding for research.

His most ambitious goal, though, has the potential to unite the worlds of basic and applied science in a manner that will advance the health and well-being of animals and people.

"The College is in a unique position to conduct research that benefits all species," said Baines, who is leading an effort to strengthen the clinical research programs at the College.

"We are at the beginning of a new era in veterinary medicine, an era in which disease mechanisms can be used to explain the physical manifestations of the condition. This level of understanding can lead to novel therapies."

Baines, a Professor in the Department of Microbiology and Immunology at the College, joined the department in 1993. He received a BS in Microbiology from Kansas State University in 1979 and a VMD from the University of Pennsylvania in 1983. He then received a PhD from Cornell



University in 1988, where he studied the molecular virology of feline coronaviruses.

He obtained postdoctoral training at the University of Chicago, where he studied the molecular virology of herpes simplex virus replication. In addition to his duties as associate dean, Dr. Baines will continue his research program with continual funding from the National Institutes of Health since 1995.

2013 Equine Seminar

On Sunday, August 25, at 2:00pm at Vernon Downs, researchers from Cornell's College of Veterinary Medicine will offer the following talks. Registration is at 1:30pm.

- "How to Protect Your Horse from Infectious Disease, at Home and at the Track,"
Dr. Linda A. Mittel
- "Equine Hepatitis Virus Discovery and its Potential Importance to Equine Health,"
Dr. Thomas Divers; Dr. Bud Tennant
- "Platelets and Herpes Virus Type-1 Infection,"
Dr. Tracy Stokol
- "Diagnosis of Poor Performance in Racehorses"
Dr. Jonathan Cheetham
- "Alternative Sources of Equine Mesenchymal Stem Cells"
Dr. Gerlinde Van de Walle



Zweig Committee welcomes two new members



Dr. Janet Durso '89

A veterinarian in Middletown, N.Y., Dr. Janet Durso joined the Zweig Committee in 2013. Her obsession with horses began when she was a little girl growing up in suburban Connecticut, where she fell in love with all things horses, working at local riding stables just to be near them.

After completing her undergraduate studies at Cornell University, she joined the polo team and remained in Ithaca to attend Cornell's College of Veterinary Medicine and complete an internship in large animal surgery.

Durso has been an equine practitioner in the lower Hudson Valley since 1990, and started her own practice in 1994. Her husband is Ray Schnittker, a standardbred trainer, driver, and owner whose outstanding career wins include Deweycheatumnhowe (2008 Hambletonian winner), One More Laugh (2010 Meadowlands Pace winner), and Check Me Out (2012 Zweig Trot winner as well as 2011 and 2012 Trotting Filly of the Year.) They have several standardbred brood mares and stallion shares, as well as recent partnerships in some thoroughbred racehorses.

She worked as a part-time on-duty emergency veterinarian at the Meadowlands for 11 years and ran a bustling pleasure horse practice for many years, but has recently concentrated her practice on the family's large racing stable. She is a member of the board of directors of the Goshen Historic Track and still finds time to play arena polo at Gardnertown Farms in Newburgh, N.Y.

Dr. Gabriel Cook '92

Dr. Gabriel Cook joined the Zweig Committee in 2013. He graduated from Vassar College in 1986 and Cornell University College of Veterinary Medicine in 1992, then took an internship at the Rood and Riddle Equine Hospital in Lexington, Ky.

He completed a large animal residency at North Carolina State University in 1996 and subsequently served as a staff surgeon at a private practice in the San Francisco Bay area for two years. He is presently a partner at New England Equine Practice in Patterson, N.Y., where he has worked since 1998.

Dr. Cook's clinical interests include medical and surgical lameness diagnosis and management; abdominal surgery; arthroscopy; laparoscopy; and critical care.



Dr. Rick Lesser retires



Dr. F. Richard Lesser '81 has stepped down from the Harry M. Zweig Memorial Fund for Equine Research Committee to pursue a vocation in ordained ministry. Joining in 2004, he was a major proponent of the Zweig Fund's mission to support research advancing the well-being of race horses. He offered expertise, heartfelt discussion, and sound judgment in helping administer the fund.

After a successful career as an equine veterinarian, Lesser retired in Fall 2012. He and his wife, Marilyn Schmidt '78, founded the Equine Clinic at Oaken Croft in Ravena, NY. She died suddenly in 2005, and Lesser raised their three children on the family farm. In 2013 he was given the Lifetime Achievement Award by the Capital District Hunter Jumper Council, an award last presented in 2006 to Marilyn.

Lesser is dedicated to the betterment of equine practice. While managing an ambulatory and in-house equine clinic employing many veterinarians, interns, and support staff, he has also served as speaker, teacher, and advisor for equine and veterinary practices around the country. For years he engaged in the American Association of Equine Practitioners, serving on several committees and chairing the National Commission on Veterinary Economics Task Force and the Task Force on Equine Veterinary Technicians.

He spoke on equine issues to people around the country, taught equine health at SUNY Cobleskill, and chaired Veterinary Management Group VII, a group of 21 veterinary practices dedicated to bettering equine practice. He served as co-facilitator of Veterinary Management Group XX, a group of academic equine hospitals, including Cornell, dedicated to maximizing university clinics' missions.

In May 2013 Lesser earned a Master in Divinity degree and will enter the Blessed John XXIII National Seminary as a student this Fall. We wish him well on his latest journey!

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, 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.

CORNELL UNIVERSITY COLLEGE OF VETERINARY MEDICINE 2013 HARRY M. ZWEIF MEMORIAL FUND COMMITTEE

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*Sr. Vice President, Operations
Blue Chip Farms, Inc.
Wallkill, N.Y.*

Gabriel Cook, DVM

*New England Equine Practice
Patterson, N.Y.*

Janet Durso, DVM

Middletown, N.Y.

Paul Kelley

*Kelley Racing Stable, LLC
Gansevoort, N.Y.*

Michael I. Kotlikoff, VMD, PhD

*Austin O. Hoey Dean of Veterinary Medicine
Cornell University College of Veterinary Medicine,
Ithaca, N.Y.*

Paul C. Mountan, DVM

Rhinebeck, N.Y.

Mike Mullaney

*Executive Director
Agriculture and NYS Horse Breeding Development Fund
Schenectady, N.Y.*

Robert M. Tugel, DVM

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Patricia Wehle

Fairport, N.Y.

Robert Williams

*Acting Executive Director
New York State Gaming Commission
Schenectady, N.Y.*

William Wilmot, DVM

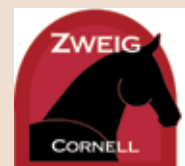
*NYS Thoroughbred Breeding & Development
Fund Corp. Saratoga Springs, N.Y.*

Anna Zweig

*Middlebrook Farms
Nassau, N.Y.*

Brian Zweig

Rensselaer, N.Y.





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College of Veterinary Medicine

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Horses at home

Many members of the Harry M. Zweig Fund Committee enjoy equine companions at home as well as work. This photo series runs over several Zweig News Capsule issues featuring Committee members with their horses.

Left:

Mr. Paul Kelly with "You Want Me," a two-year-old Sire Stakes trotting filly champion for New York State in 2012.