



A Newsletter Published by the Marion duPont Scott Equine Medical Center

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The Marion duPont Scott Equine Medical Center is fully integrated with the missions of the Virginia-Maryland Regional College of Veterinary Medicine, consistent with the land grant traditions of Virginia Tech and the University of Maryland. Our constituents are those with an interest in the horse: students, veterinarians, horse owners, and horse professionals. Our faculty and staff strive to provide:

- Pre-eminent equine health care services for the region;
- Exemplary educational experiences for all of the Equine Medical Center's veterinary students;
- New knowledge for the well-being of the horse, and for the economic benefit of the equine industry.



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At the EMC, mares and foals have access to the best care possible

Partners Bob Manfuso and Katy Voss own and operate Chanceland Farm in West Friendship, MD.

"Ours is a busy Thoroughbred farm, and we've had a countless number of mares foal here," Manfuso said. "Usually, foaling is a fairly routine experience. Last year, however, one of our mares, Premier Tigressee, was due to deliver in mid-March, but when almost three weeks went by and not only was there no foal, the mare had none of the physical indications that the foal – which would be her first – would come any time soon."

"Our farm vet noted that the foal was not in an optimum position for birth," Voss added. "And

on top of this, the mare has a history of founder. With all that under consideration, together we agreed that the best thing to do would be to take Premier Tigressee to the EMC. This way, we could completely assess her condition and we could also check on the well-being of the foal."

Dr. Martin Furr, professor and Adelaide C. Riggs Chair in equine medicine at the Center, described Premier Tigressee as "bright and alert, but a bit nervous" when she arrived at the EMC.

"We began her evaluation with all of the routine tests: getting a complete blood count, making sure she didn't have a tempera-

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Fuzzy, now almost a year old, is described as "sweet and gentle."

High-field MRI comes to the EMC

In 2004, the Equine Medical Center was the first facility on the East Coast to install a standing magnet MRI. Since then, nearly 1,000 of these exams have been completed in-house, with horses sedated in a standing position.

The in-house magnet is a "low field" magnet, and though it creates good diagnostic images, it does not have the resolution achieved with a "high field" MRI.

In addition to continuing to utilize the in-house MRI for standing horses, a mobile, "high field" MRI unit is now

scheduled to visit the EMC at least once per month so even better images can be obtained for specific problems, which are typically located in the upper limb (specifically from the knee down – an

area that can't be imaged with horses standing, due to their movement). The mobile unit differs from the in-house one in that it requires the horses to be under general anesthesia.

Veterinarians and clients with horses that require MRI are encouraged to contact us for details about which MRI is appropriate for their horse.



A horse is prepared to undergo an MRI utilizing the high-field equipment now available at the EMC.

For questions or comments concerning this newsletter, please contact Kate Lee at 703/771-6881 or at clepr@vt.edu.

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Director's Message

by Dr. Nat White

As a teaching hospital, the EMC delivers

The Marion duPont Scott Equine Medical Center exists for the three purposes, which are outlined in our mission statement: teaching, research, and service. Each day, our efforts are devoted to excelling at each of these objectives.

As part of the Virginia Maryland Regional College of Veterinary Medicine, we serve as a teaching hospital for veterinary specialists and veterinary students. This educational environment prompts everyone – faculty, students, and staff – to constantly seek and generate the newest medical information so it can be added to the curriculum and immediately applied for our patients. Ultimately, the aim is to not only provide the utmost in quality medical care for our patients, but also to serve our clients to the best of our ability.

Our teaching mission brings many populations into the patient care realm, and, when one considers that several sets of eyes and brains are devoted to helping meet each patient's needs, we think that's a very good thing.

In direct patient care activities, the Center's residents are an integral part of the clinical teams that deliver high-quality medical care to our equine patients. During their three year residency here, these highly-accomplished veterinarians train for specialization in medicine or surgery. Residents work with faculty to assist with procedures, monitor hospitalized cases, and receive emergencies. We encourage our residents to take their respective specialty board examinations in order to become "Board Certified," an extremely difficult and prestigious accomplishment.

During his or her tenure at the EMC, each resident completes a research project as part of the requirement to earn a Master of Science degree in Veterinary Medicine aimed at specific equine health problems. This research helps bring new technology to not only the hospital, but also the industry. To date, research topics have included Magnetic Resonance Imaging foot lameness, suspensory ligament cell apoptosis, stem cell manipulation, wound healing techniques, endotoxic shock, antibiotic delivery and airway treatments – just to name a few.

In addition, we play a key role in educating fourth year veterinary students from

the college who elect to take equine as part of their clinical training. These students come to our facility to absorb a more in-depth, hands-on learning experience with horses. While these students have yet to receive their DVM degree, they come with three years of intense education and training that has covered all aspects of veterinary medicine, including equine diseases.

During the students' rotation at the EMC, their time is split between medicine and surgery. They help our faculty and staff manage both elective and emergency patients, and when possible, they assist – under the supervision of senior clinicians – with medical and surgical procedures, imaging, and laboratory tests. They are a constant stimulus to the entire hospital as they continually ask questions about medical care and how to identify and treat both common and rare diseases.

Because of our dedication to our mission, our patients gain a great benefit from the scrutiny of all the members of the clinical team, from faculty to residents to students to staff. This is particularly important when dealing with critical cases, where monitoring by several individuals provides valuable and timely input about needed treatments.

In our 26 years as a teaching hospital, 571 students, 114 extern students and 37 residents have received training while helping to deliver the best care to our patients. Providing excellent health care education is one reason EMC continues as a key medical resource for the horse industry.

To contact Dr. White, please visit his online profile at <http://www.vetmed.vt.edu/emc/welcome/bios/white.asp>.

Ann Nadjar

Sadly, we report the passing of former EMC employee Ann Nadjar. With her lifelong love of riding, Ann put her journalistic skills and her affection for animals together when she served as assistant director of development at the Center from 2000-04. She succumbed to breast cancer last August.



Ann M. Nadjar

Care for mares and foals, continued

ture, and assuring that her respiration and heart rates were normal,” Furr said. “Given that we house the most technologically advanced equipment, such as an electrocardiogram unit and ultrasound, we can – as often as necessary – check the mare’s vital signs, as well as parameters of the fetus to help us identify if the fetus was distressed.”

Other testing included both an examination that indicated the foal was

in the proper position for the eventual birth, and an abdominal ultrasound that showed the placenta and uterus looked fine and that the fetus was active and her heart rate was normal. These are encouraging signs, as they indicate that the fetus was not undergoing any stress which would complicate its delivery.

Over the next few days, Premier Tigresse spent time at the EMC as an inpatient, receiving the typical care and treatment all patients receive, which is to say that the nurses

checked on her regularly, updated diagnostics and lab tests were performed, and the staff assured that the pregnancy was progressing well and that the mare was as comfortable as possible.

Furr and the rest of the medial team monitored Premiere Tigresse for signs that the foal would soon arrive, and they watched for any signs that might indicate a problem was brewing, such as noting



Premier Tigresse, wearing special shoes, is again in foal. “A year ago, she was a crippled, pregnant mare that we were afraid we’d have to put down,” Voss said. “Look at her now!”

changes in uterine thickness or a separation of fetal membranes from the uterus. Fortunately, in a normal delivery attended by EMC veterinarians, the foal, now named “Fuzzy,” arrived in the early morning hours of April 1st.

While this foal was born without complication, Manfuso and Voss felt reassured that both the mare and the foal were in a place where – should emergency care be required – immediate, high-quality care would be readily available.

“As much as possible,

The EMC is uniquely staffed and equipped to be able to provide unparalleled medical care to manage high-risk pregnancies, difficult births, and critical care for foals with problems during their first days of life.

As Dr. Martin Furr notes, “if a problem surfaces, there is absolutely no delay in our being able to provide critical, ‘round the clock care for both the mare and the foal.”

we handle things in a way that meets the ‘better safe than sorry’ standard,” Voss said. “We take a proactive and positive approach to our horses’ health care issues, and, with the Equine Medical Center an hour away, we can accommodate any of our horses’ medical needs.”

“Besides the great care the horses get at the Center,” Bob pointed out, “they have a great customer service approach to how they do things. We got timely and thorough communications from the medical team. This was a very positive experience.”

Faculty members awarded research grants

Veterinary specialists at the EMC have been awarded several research grants to support their efforts to improve horse health—not only for their own patients, but for all horses.

Dr. Jennifer Barrett received a \$20,222 grant from the Virginia Horse Industry Board (VHIB) to continue her research using platelet rich plasma (PRP) to promote healing of orthopedic injuries in horses.

Barrett’s new project will identify the features of platelet rich plasma that are critical for stimulating healing of tendons, ligaments, and cartilage in areas where healing has failed. This research is a continuation of ongoing projects to optimize regenerative medicine techniques to treat orthopedic injuries in horses and other



Dr. Jennifer Barrett

species.

The VHIB also awarded a \$9,864

grant to Dr. Harold McKenzie and Dr. Martin Furr to examine how antibodies administered via aerosol to horses’ lungs can help reduce the incidence and severity of lung diseases. McKenzie and Furr will work with third-year internal medicine resident Dr. Dale Beebe in cooperation with Dr. Peter Byron and Dr. Mike Hindle from the Virginia Commonwealth University School of Pharmacy.

This grant, along with \$9,000 from Virginia Tech’s Internal Research Competition, will fund McKenzie’s and Furr’s research to determine whether aerosol administration is not only easier and safer to accomplish, but also more ef-



Dr. Martin Furr

fective than intravenous administration, which is the technique currently in use.

All research for these projects takes place in the Equine Medical Center’s molecular research laboratory.

“We continue to provide translational medicine by bridging the gap between bench top research and therapeutic applications,” noted Dr. Nat White, Jean Ellen Shehan professor and Director of the Center. “Our campus combines both sides of the translational medicine coin: exceptional hospital facilities and a state-of-the-art research laboratory. By putting these facilities under the guidance of leading clinician scientists, we’re able to provide an unsurpassed level of equine health care.”



Dr. Harold McKenzie

We invite you to become a “fan” of the EMC by “liking” us on our new Facebook page at www.facebook.com/equine_medicalcenter. And, you can follow us, along with the VMRCVM, on Twitter at www.twitter.com/vmrcvm. On another note, if you’d like to begin receiving your newsletter by email, please contact Kate Lee at 703-771-6881 or by email at clepr@vt.edu.

Marion duPont Scott Equine Medical Center

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Tuesday Talks

The final *Tuesday Talk* of the 2010-11 season is:

March 22, 2011

“The Curse of Foot Lamenesses” will be presented by Dr. Nat White, MS, Diplomate ACVS, Jean Ellen Shehan Professor, and Director of the Marion duPont Scott Equine Medical Center.

The lecture takes place at 7:00 p.m. in the Center’s library. No fee is charged for attending, but seating is limited and pre-registration is required. To register, e-mail Amy Troppmann at atroppmann@vt.edu or call (703) 771-6843.

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Beverly “Peggy” Steinman presented with the Distinguished Service Award

In recognition of her unwavering dedication, extraordinary generosity, and exemplary service to Virginia Tech’s Marion duPont Scott Equine Medical Center (EMC), Beverly “Peggy” Steinman was awarded the 2010 Distinguished Service Award on October 14.

As he presented the award to Steinman, Dr. Nathaniel White, Jean Ellen Shehan Professor and Director of the Medical Center noted, “this award was established in order to recognize and honor those individuals who have demonstrated exemplary service and dedication to fulfilling the Equine Medical Center’s mission. For more than 20 years, Peggy has generously and tirelessly provided expert leadership and keen business advice to this faculty, staff, and college. She has helped us attain an advanced level of achievement in service, teaching, and research. We are in her debt.”

Shelley Duke, chairperson of the EMC’s Council and vice rector

of the Virginia Tech Board of Visitors, added that, “from the beginning, Peggy seemed to have formed a special bond with the EMC and its mission. We have worked together for many years, and her commitment is evidenced by the innumerable things she does for the people and programs on the Center’s campus. She is energetic, dependable, diligent, and wise, and I rely on heavily on her for advice and guidance. It is a pleasure and an honor to work with Peggy.”

White and Duke each enumerated some of the significant ways that Steinman has contributed to the EMC. “Peggy has provided many generous gifts to us for the purchase of dozens of pieces of state-of-the-art biomedical equipment that have been used on countless horses over the years,” said White. “She believes that you can’t do the best work without the best equipment and facilities, and this belief has resulted in better health for many,

many horses. This is just one of the ways that her incredible generosity has helped the EMC become a world-renowned center for equine medical care and teaching.”

“Peggy was instrumental in supporting the concept of the seasonal barn, which was designed with the help of her former horse trainer, Paul Fout,” Duke noted. “She supported this project by assuring that the funding was there from the initiation of the project right through to its completion.”

In addition to serving on the EMC’s Council and Executive Committee, Steinman is chairperson of Steinman Enterprises, a group of companies headquartered in Lancaster, Pa., which includes Lancaster Newspapers, Lancaster Farming, Inc., Lancaster County Weeklies, Inc., Delmarva Broadcasting, Steinman Coal Company, and Steinman Park Restaurant.

Upon receiving the Distinguished Service Award, Steinman said, “I am honored to be given such a prestigious award. The hospital has always done – and continues to do – a wonderful job with its dedicated staff. It gives me great pleasure to keep supporting the EMC and to see the remarkable results it consistently achieves.”



Beverly “Peggy” Steinman