



# Update

for Veterinarians

March-April 2016

## Capsule Endoscopy Offers Minimally Invasive Option

Since June 2015, specialists in Small Animal Internal Medicine at the Veterinary Medical Center (VMC) have been using a new endoscopic technology that is rapidly improving diagnostic procedures for gastrointestinal disorders in dogs.

Capsule endoscopy is a single-use pill containing a tiny camera that takes pictures as it moves its way through the patient's digestive system. The camera transmits data wirelessly to a monitor worn by the patient, allowing clinicians to more clearly view the entire gastrointestinal tract, and to pick up any lesions in real time, either from the patient's monitor or from the clinic computer screen.

The VMC is one of only three U.S. veterinary hospitals that offer capsule endoscopy, said **Dr. Adam Rudinsky**, a clinical instructor in the Department of Veterinary Clinical Sciences.

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**614-292-3551**

*Hospital for Farm Animals and Galbreath Equine Center:*  
**614-292-6661**

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## From the Director



In this issue of *Update for Veterinarians*, we focus on service and technology advancements that are a part of our efforts to improve our service to your clients and patients.

One of these developments is the use of the capsule endoscopy, a state-of-the-art technology that uses a camera in pill form to illuminate high-density, real-time images throughout the gastrointestinal tract in dogs. The Veterinary Medical Center (VMC) is just one of three U.S. veterinary hospitals to use this innovative procedure. Additionally, in our Equine Medicine Service, imaging specialists are using nuclear medicine and onsite MRI as dynamic diagnostic tools.

The sounds of change are all around us at the VMC. The Enhancement & Expansion (E&E) project hit a major milestone with the opening of our new clinical office

building on March 1st. Lobby renovations begin in early March and when completed will feature 26 exam rooms, two cat-waiting areas, a centralized reception desk and more accommodating lobby waiting areas for our clients and patients.

As part of our E&E renovations, and beginning February 29th, our Behavioral Medicine Service is temporarily relocating to our VMC—Dublin location, where we have made accommodations to serve patients that need quiet entry to the facility.

Finally, we have new signage that explains temporary parking and entrances to the VMC's Hospital for Companion Animals during our E&E phase 2. See page 2 for these details. Thank you for your patience and for sharing these developments with your clients. Fortunately, these temporary adaptations mean exciting new clinical and client space is just around the corner!

As always, I welcome your comments and questions.

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## Capsule Endoscopy Offers Minimally Invasive Option

Capsule endoscopy has been used in human medicine for some 15 years to detect gastrointestinal bleeding and has shown comparable rates of success while improving patient comfort and safety compared with other more invasive methods, according to Dr. Rudinsky.

“This innovative endoscopic technology, which was made possible by a gift from a private donor, has been in use in veterinary medicine for less than five years,” said Dr. Rudinsky. The capsule’s ease of use aids clinicians and patients in several ways. The procedure does not require anesthesia and clinicians can administer the capsule to the dog orally like a regular pill. The technology’s software system, which links the camera to external monitors, also helps clinicians evaluate the patient’s condition without having to perform surgery.

“I can set the computer to check for color changes and screen for abnormalities,” said Dr. Rudinsky. “There are

hours of images to view, providing a comprehensive overview of the animal’s gastrointestinal tract.”

Patients fast for a full day prior to the day of the procedure. In the morning of the visit, the dog is given the pill and remains at the hospital for the entire day wearing a holter monitor. The patient “hangs out” with the Internal Medicine Service during this time until it eliminates the capsule. Because of its size, the capsule cannot be used in dogs less than 15 pounds or in cats. Length of stay is usually one overnight, but may vary.

Capsule endoscopy can additionally be used in cases where it is part of a standard endoscopy, or when the clinician wants to see sections of the intestines that cannot be viewed with a regular endoscopy or colonoscopy. In this case, the patient is under general anesthesia and the endoscope is used to place the capsule in the small intestine. Currently, main indications for the capsule endoscopy’s use include cases of gastrointestinal bleeding and when a dog is at high risk for anesthesia, said Dr. Rudinsky. An important aspect for referring DVMs to know, he added, is that the capsule is a camera, not a method of biopsy.

“This is really at the forefront of veterinary gastroenterology in terms of both the clinical and research applications.”

Since the service launched, seven patients have had the procedure and the number continues to grow. **Interested referring veterinarians can call 614-292-0950 and ask to speak with referral coordinator, Stephanie Yochem.**



## VMC Construction Update: Enhancement & Expansion Project

Beginning March 1, the Hospital for Companion Animals’ clients will enter via the Hospital for Farm Animals door and park across the street (Vernon L Tharp St.) from the Veterinary Medical Center.

Directional, way-finding signage will be posted to make it easy for clients to find parking, as well as make their way to the lobby registration and waiting areas for companion animals. Emergency access and parking, with directional signage, will also be available outside the Hospital for Farm Animals entrance for companion animal emergencies.

The new Hospital for Companion Animals lobby and entrance is expected to be completed by November 2016.

We apologize for any inconvenience and are working very hard to ensure smooth, safe and secure operations for all of our clients throughout the construction.



## Diagnostic Imaging Services in Equine Medicine

In addition to ultrasound and computed tomography, Veterinary Medical Center specialists treating equine patients have three other diagnostic imaging tools at their disposal: digital x-rays, nuclear medicine and magnetic resonance imaging (MRI).

“X-rays are usually the equine veterinarians’ first choice for diagnostic imaging, generally after either localizing the lameness with nerve blocks or physical examination findings, for example, abnormal swelling,” said **Dr.**

**Matthew Brokken**, clinical assistant professor in the Department of Veterinary Clinical Services at the College of Veterinary Medicine and Galbreath Equine Center. X-rays are beneficial for bony abnormalities such as osteoarthritis, bone cysts and fractures, he said, as well as to screen for abnormalities associated with the navicular bone or gas accumulation in tissues.

The VMC’s new nuclear medicine unit, the MiE Equine Scanner H.R.-Scintron’ Gamma Camera system, allows the imaging team to perform nuclear scintigraphy on horses. Also known as a “bone scan,” nuclear scintigraphy uses small amounts of radioactive material injected intravenously to depict regions of increased bone activity, such as osteoarthritis and occult fractures.

“A nuclear medicine bone scan is often used when a lameness is identified, but the area or limb is difficult to pinpoint,” said **Dr. Eric Green**, professor of radiology and radiation oncology and head of the Diagnostic Imaging and Radiation Oncology Service.

The advantage of the MiE Equine scanner is that it is compact and mechanically superior to systems that use pendulum suspension. The unit contains ParalyzerPLUS software, which has real time motion correction should the slightly sedated standing horse sway during the procedure. The shorter image acquisition time improves diagnostic quality and speeds the scanning process. The camera is mounted on a support column one centimeter above the floor and can be easily and quietly maneuvered by hand along any axis.

“This method is particularly useful in racehorses with stress fractures that are difficult to localize with a physical examination or in horses where a diagnosis cannot be determined by other imaging modalities,” said Dr. Brokken.

In addition, the scan is a strong tool for demonstrating changes in the upper limbs, back and pelvis, and for helping identify which body part(s) to x-ray.

Dr. Green credits the VMC’s new MRI with several advantages in equine medicine. “Our MRI has much

higher resolution due to the high magnetic field strength (3 Tesla), and the larger bore (70 cm) allows us to image much higher in the limb, up to and through the carpus and tarsus. MRI is also the best way to image the ligaments, tendons and cartilage in the limbs.”

“In less than two hours we can image an area (foot, fetlock, carpus or tarsus) in both limbs,” Dr. Green added. The entire head of a horse can also be imaged along with entire body of foals.

“The new MRI is also useful for identifying subtle changes to bones and ligaments not visible on radiographs and/or ultrasound, perhaps the unit’s most valuable application,” Dr. Brokken said. This capability allows specialists to determine whether the injury is chronic or recent, and how much inflammation is present.

Brokken emphasizes that the MRI is not a scanning tool and that all horses should have lameness localized to a specific region of the horse with nerve or joint blocks before having an MRI examination.

“By far and away the biggest benefit of MRI is that it allows us to determine an accurate diagnosis,” he said, with results that lead to appropriate treatment recommendations.



## Behavioral Medicine Service Temporarily Relocates to Dublin

Beginning February 29, the VMC Behavioral Medicine Service at the main campus will temporarily relocate to the **VMC–Dublin, 5020 Bradenton Avenue** until early 2017, to allow for the ongoing Enhancement & Expansion (E&E) Project construction.

Clients with companion animals seeking behavioral health care will receive the same services at Dublin as were offered at the main hospital. The appointment making process and email/phone communication will not change — just the location of the service delivery. Clients and patients will be guided through a separate quiet entry at the Dublin facility.

**Dr. Meghan Herron**, clinical assistant professor of behavioral medicine in the Department of Veterinary Clinical Sciences, looks forward to how the E&E renovations will transform the environment for behavioral health clients and patients at the campus location.

“We’ll have two new larger exam rooms dedicated solely to behavior, and we’ll have a separate entrance for patients who need a quiet entry,” she said. The changes are aimed at preventing situations that might upset patients. Previously, companion animals that could not use the main entrance shared the back exit with farm medicine.

Clients will work with new **service coordinator Laura Donaldson**, a licensed veterinary technician who joined the team last October. Donaldson has varied experiences in small animal medicine and is also an adjunct faculty member in the Veterinary Technology Department at Columbus State Community College.

The Behavioral Medicine Service sees about 400 patients a year, and offers problem behavior consultations to owners of small animals with issues ranging from human-directed aggression, inter-pet aggression, separation anxiety, inappropriate elimination, fears, phobias, compulsive behaviors and cognitive dysfunction.

“The most common issue we see is aggression in dogs, whether human directed or against other dogs, as well as separation anxiety,” said Dr. Herron. “In cats, we see a lot of elimination problems and cats fighting with each other.

“I think getting people to understand why [this happens] is a big part of what we do.”

Clients and referring veterinarians are asked to call the Behavioral Medicine Service at **614-292-3551**. Directions to the VMC–Dublin facility and further information can be found at [vet.osu.edu/behavior](http://vet.osu.edu/behavior).

Find us on 

The Ohio State University College of Veterinary Medicine  
The Ohio State University Veterinary Medical Center  
The Ohio State University Veterinary Medical Center at Dublin

## Welcome Dr. Hinds



### Austin Hinds, DVM, MS

Assistant Professor-Clinical  
Farm Animal Medicine and  
Surgery

Dr. Austin Hinds, a 2007  
graduate of Mississippi  
State University College of

Veterinary Medicine, joins Farm Animal Medicine and Surgery after having served as Clinical Assistant Professor in Food Animal Medicine and Surgery at the University of Idaho Department of Animal and Veterinary Science. Dr. Hinds completed his residency in 2011 at The Ohio State University Hospital for Farm Animals. His interests include clinical improvements in bovine lameness, diagnostic ultrasound and small ruminant production medicine.

## Mark Your Calendar



The **2016 Equine Affaire in Ohio** is scheduled for **April 7–10** at the **Ohio Expo Center in Columbus**. The event features an educational program with more than 200 clinics, seminars

and demonstrations on a wide variety of equestrian sports and horse training, management, health and business topics.

Other activities include the largest equine-related trade show in the United States, a marketplace consignment store and more.

See full details at [equineaffaire.com/ohio/](http://equineaffaire.com/ohio/)

## Clinical Trials

We always have a need for participants in veterinary clinical trials. If you have a patient that might be eligible, please contact the Ohio State Veterinary Clinical Trials Office at [cvm-clinicaltrials@osu.edu](mailto:cvm-clinicaltrials@osu.edu) or **614-292-4559**.

For a list of current trials, please visit:  
[vet.osu.edu/vmc/clinical-trials](http://vet.osu.edu/vmc/clinical-trials).