This year has been a transformative one for the Veterinary Medical Center. In this issue of Update for Veterinarians, we focus on a few of these developments—the outstanding advances in VMC clinical trials research and the continued progress of our Enhancement and Expansion Project.

The E&E Project includes renovated and new clinical and waiting spaces for clients and patients. We’re excited to soon welcome clients and patients into these beautifully designed and inviting areas, as we finalize Phase 2 of the project. See page 4 for photos of the progress of our new entryway, lobby, reception desk and exam rooms.

In one of our clinical research trials, Dr. Emma Warry, assistant professor in oncology, is seeking to determine whether a certain intracellular protein can be used as a biomarker to predict gastrointestinal side effects in dogs treated with the cancer drug toceranib. Dr. Lynette Cole, associate professor and head of the Dermatology and Otology Service, is conducting a clinical trial that aims to enhance diagnostic tools in evaluating canine hearing loss using brainstem auditory evoked response testing.

These are just two of the exciting trials our Blue Buffalo Veterinary Clinical Trials Office oversees in our efforts to advance patient care and medical knowledge.

We are very proud of what we have accomplished this year. As always, I’m happy to answer any questions you may have about these and any of our services.

Wishing everyone a wonderful holiday season.
According to Warry, toceranib (marketed as Palladia) can be used as part of a multimodal therapy to treat dogs with mast cell tumors. Toceranib belongs to a class of drugs known as tyrosine kinase inhibitors, commonly used in human cancer treatment. In addition to dogs with mast cell tumors, clinical benefit has also been noted in a variety of tumor types, including anal gland and anal sac adenocarcinoma, thyroid carcinomas, head and neck carcinomas, nasal tumors, and metastatic osteosarcoma. However, some 70 percent of canine cancer patients on toceranib will develop gastrointestinal side effects.

“Usually these side effects are fairly mild, either grade 1 or grade 2, with diarrhea occurring most commonly. For most dogs, these side effects are easily treated by either stopping the drug (referred to as a drug holiday) and restarting at a lower dose, or starting supportive medications,” said Dr. Warry.

However, she added, reduced dosage or stopping the drug altogether can adversely impact outcome, particularly if the patient’s cancer is responding to therapy.

To explore this, Warry is conducting a clinical trial to determine whether plasma cytokeratin (CK)18 levels, an intracellular protein found in epithelial cells, can be used to predict the onset and severity of GI side effects in dogs treated with toceranib.

“I got the idea based on the same research being conducted in human cancer patient trials,” said Dr. Warry.

The trial recently launched and will enroll 40 dogs by summer 2017; currently seven patients are enrolled in the study. Dr. Warry says patients are being enrolled at several sites around the country.

Boston terriers, boxers, pugs and pit bull terriers are at higher risk of developing mast cell tumors, however these breeds tend to get the low grade disease. Shar-Peis tend toward a higher grade.

Dr. Warry noted several important aspects of the trial veterinarians need to consider when referring a patient:

- For inclusion, the dog can not have gross disease;
- The clinical trial requires weekly outpatient visits for four consecutive weeks and runs for 28 days;
- At each weekly visit, a blood sample will be collected to determine plasma CK 18 levels; and
- A CBC will be performed on day 14; standard diagnostics for a patient receiving Palladia (CBC, chemistry profile, urinalysis, urine protein to creatinine ratio and blood pressure) will be performed on day 28.

The client receives four months of Palladia at no cost.

Warry added that the VMC’s new Integrated Oncology Service has given clinicians opportunities to enhance oncology care. “In the past,” she said, “the clinician would have identified a mast cell tumor, and the patient would have gone to surgery. The surgeon would have performed the procedure and then the patient would return for follow up care. Now, the patient stays with us the entire time, and instead of having just the medical oncologist work on the case, the medical and surgical oncologist are working together from the very beginning. This allows us to better plan and prescribe the best surgery, to quickly follow up and to get patients enrolled in a more timely manner.”

Dr. Warry suggested that referring veterinarians contact her in advance of referring a client to the Clinical Trials Office. For more information, contact the Blue Buffalo Veterinary Clinical Trials Office at 614-247-8706 or cvm-clinicaltrials@osu.edu.
BAER Trial Seeks to Improve Hearing Loss Diagnostics

To evaluate a dog’s hearing loss or hearing ability, otology specialists typically rely on brain-stem auditory evoked response (BAER) testing, a diagnostic exam that sends multi-tonal electronic clicks via earphones to the ear to measure signals from the brainstem.

While the BAER test can be used to diagnose impaired hearing, there have been conflicting reports regarding the impact of gender, breed, weight and head size on the establishment of normalized BAER data, which is essential for determining an abnormality, said Dr. Lynette Cole, associate professor and head of the Dermatology and Otology Service.

Dr. Cole is conducting a clinical trial that aims to do just that—specifically obtaining and evaluating BAER data from normal hearing Cavalier King Charles Spaniels (CKCS) between the ages of one and two years old, with no history of hearing loss.

“BAER test results are not always conclusive to determining if the hearing loss is conductive (blockage of sound from the middle and inner ear) or sensorineural (damage to the cochlea or auditory nerve),” she said.

As some CKCS may suffer from primary secretory otitis media (PSOM), due to a buildup of mucous in the middle ear, a computed tomography (CT) scan will be performed to ensure that this disease is not present, as PSOM can cause conductive hearing loss which would skew the BAER data.

Dr. Cole’s research stemmed from identifying acquired sensorineural hearing loss in the CKCS, which occurred in dogs that were too young to have age-related hearing loss. In order to explore this hearing loss further, BAER data specific to the CKCS needed to be established.

Dr. Cole and her team are seeking Cavaliers between one and two years old. The study lasts one day and dogs are under anesthesia for all procedures, including the BAER test, a CT scan and MRI.

The clinical trial is made possible with funding from the American Cavalier King Charles Spaniel Club Charitable Trust and The Ohio State University Paladin Fund. The study pays for all testing.

For information on the clinical trial, contact Dr. Cole at 614-292-3551 or cole.143@osu.edu.

Dogs Needed for Lick Granuloma Study

The VMC Dermatology & Otology Service is still enrolling dogs for a study on the treatment of canine acral lick dermatitis (ALD), also known as lick granuloma, a frustrating disease that is difficult to treat. The study seeks to determine whether laser therapy is an effective treatment to decrease licking.

All patients will receive a physical and dermatologic exam; dermatology tests; a radiograph of the affected limb; treatment with oral medications; and actual or sham laser therapy. At the trial’s end, clients will receive a free six-month supply of an oral or topical flea preventative.

Specific inclusion criteria are available upon request. Owners are responsible for initial consultation fee of $125. All other diagnostic and treatment costs are covered by the study.

For more details, including cost, contact Dermatology & Otology resident, Dr. Amy Schnedeker, at 614-292-3551 or schnedeker.1@osu.edu.

Mobile Ultrasound Now Available

Mobile Ultrasound service is available to practices within 30 miles of the VMC’s campus location.

Please visit our web page at vet.osu.edu/vmc/mobile for more information or call 614-292-0950 to schedule.
Welcome New Faculty

Noopur Desai, BVSc, MVSc
Assistant Professor-Clinical, Radiation Oncology

Dr. Noopur Desai is a 2008 graduate of the KNP College of Veterinary Sciences in Maharashtra, India. After completing her BVSc she went on to pursue a Master of Veterinary Science (MVSc) in surgery from Mumbai Veterinary College in Mumbai, India. She joins the Integrated Oncology Service at the VMC after having completed her residency in radiation oncology at the University of Wisconsin-Madison School of Veterinary Medicine, an integrated oncology program for comprehensive cancer care. Dr. Desai’s research interests include evaluation of the role of stereotactic radiotherapy in veterinary medicine.

Sushmitha Durgam, BVSc, MS, PhD
Assistant Professor - Equine Surgery

Dr. Sushmitha Durgam completed her PhD in Veterinary Clinical Medicine this past summer, and her equine surgery residency at the University of Illinois, Urbana-Champaign in 2015. She completed her Master of Science degree at the University of Illinois in 2010 and her undergraduate veterinary studies in India in 2007. Her research interests include tendon repair/regeneration, adult stem cell and tenocyte biology.