Evaluation of four STA-1474 dosing regimens in dogs with mast cell tumors

This clinical trial will evaluate the ability of STA-1474 to stop mast cell tumor growth in dogs. STA-1474 is an anti-cancer drug given by intravenous injection that acts to block a protein called HSP90 in cells. HSP90 is a chaperone protein that helps maintain the expression and function of several cell proteins (Kit, Met, Akt, etc.) which are often critical for the survival and growth of cancer cells. Studies in the laboratory have shown that if HSP90 activity is blocked then the cancer cells die. A number of different clinical trials of HSP90 inhibitors in people and now in dogs have shown that inhibition of HSP90 can either stop tumor growth or shrink them partially. Despite this encouraging preliminary work, most of the HSP90 inhibitors have not been as effective as would been predicted based on laboratory studies. There is no definitive evidence but it is thought that these inhibitors may need to be given more frequently than or over a longer duration than initially believed. This brings us back to the purpose of this clinical trial. This study will test 4 different dosing regimens of STA-1474 in dogs with mast cell tumors and evaluate how each dosing regimen affects Kit, a protein maintained by HSP90 that is necessary for mast cell survival and growth. The data collected from this study will provide critical new information that will be used to guide additional studies of STA-1474 in both humans and dogs.

To qualify for enrollment in this study

Dogs must have a cytologic or histologic diagnosis of mast cell tumors. Mast Cell Tumors cannot be surgically removed. Dogs must be at least 1 year of age, have adequate organ function, have a life expectancy of at least 8 weeks and have no evidence of systemic disease. Dogs cannot have any prior chemotherapy (including Kit inhibitors) or radiation therapy although prior prednisone treatment is acceptable.

* If eligible all costs associated with this study are covered.*
CLINICAL TRIAL UPDATES

COTC007b: Preclinical Comparison of Three Indenoisoquinolines Candidates in Tumor Bearing Dogs

Lymphoma is one of the most common cancers in dogs, accounting for 7% to 24% of all canine cancers. Although most dogs with lymphoma respond initially to current chemotherapy drugs, most eventually develop drug resistance. This clinical trial sponsored by the National Cancer Institute (NCI) assesses the safety and effectiveness of three newly developed chemotherapy agents (indenoisoquinolines) when given to dogs with lymphoma. Although this class of compounds has shown efficacy in a variety of cancers, interest in developing new topoisomerase I inhibitors, indenoisoquinolines, are currently being evaluated in human patients as agents with improved drug stability and measurable blood levels. This study is the first time the indenoisoquinolines are being assessed in dogs with cancer. This trial is divided into 2 phases. The first phase is a dose finding phase to determine safety followed by a validation phase for biological assay development (tumor marker evaluation pre and post treatment). Anti-cancer activity against canine lymphoma will be assessed in both phases.

Patient Eligibility Criteria:
Dogs with confirmed diagnosis of lymphoma with at least one lymph node larger than 3 cm diameter are eligible to participate. Dogs may be newly diagnosed or have previously received treatment. A two week washout period from previous chemotherapy or radiation therapy is required and dogs must not have received corticosteroids or L-asparaginase seven days prior to entry into the study. Dogs must be feeling well and otherwise be in good overall health with adequate organ function, as determined by recent blood work, to participate in this study. Study period is 29 days with visits on days 1,3,5,8,15,22 and 29.

COTC018: Evaluation of Iniparib in Tumor Bearing Dogs to Define its Pharmacokinetic Profile and Biological Activity

This clinical trial led by the National Cancer Institute (NCI) and Sanofi Aventis will assess the safety and effectiveness of iniparib, a novel anticancer drug, when given to dogs with cancer. This agent has been safely evaluated in human patients with cancer and normal research dogs. Studies in dogs with cancer will complement currently planned human trials designed to test new doses and effects of this drug. This trial is divided into three phases. First a dose finding phase to determine safety then a validation phase for biological assay development (tumor marker evaluation pre and post treatment). Third is a control phase in this study involving dogs with mammary carcinoma.

Patient Eligibility Criteria:
Dogs greater than 10 kg (22 pounds) with a confirmed diagnosis of malignant melanoma, squamous cell carcinoma, soft tissue sarcoma or mammary carcinoma (need biopsy confirmation of this tumor type)and who are in good overall health are eligible to participate in this study. Dogs may have had surgery previously to treat the tumor but not previous radiation therapy or chemotherapy. Dogs must have adequate organ function as indicated by routine blood work. Study period is for 21 days with visits on days 1,4,8,11,15 and 21.

Financial Incentives

Once enrolled in either of these studies, all costs associated with that study will be covered. Adverse events and unanticipated hospitalizations are also covered.

Once the study has been completed, a $1000 credit will be applied to your dog’s account at the OSU Veterinary Medical Center which can be used for further treatment.

For more information please contact the Clinical Trials Office at 614-688-5713 or 614-247-8706 clinicaltrials@cvm.osu.edu
HERE’S AN EYE POPPING DEAL WORTH $500

If your office refers a dog with Newly Diagnosed and Untreated Dry Eyes to the Ohio State University Veterinary Medical Center Ophthalmology Department and they are eligible for the ZP-1 Study, you receive $500.

BUT WAIT IT GETS EVEN BETTER...

All costs are covered by the study and the dog’s owner will also receive a $500 preloaded credit card at the completion of the study.

Please Contact Dr. Wilkie or Kelley Norris PRIOR to Referral at:

Department of Veterinary Clinical Sciences
Comparative Ophthalmology
The Ohio State University
Ph: (614) 292-3551
Fx: (614) 292-1454
BRAINSTEM AUDITORY-EVOKED RESPONSE TESTING IN NORMAL HEARING CAVALIER KING CHARLES SPANIEL DOGS

The American Cavalier King Charles Spaniel Club Charitable Trust and The Ohio State University Paladin Fund has funded and made possible research to be done by Dr. Lynette Cole, at The Ohio State University, College of Veterinary Medicine, Veterinary Medical Center.

OVERVIEW OF THE STUDY:
Hearing disorders are a common condition recognized in many breeds of dogs. In the dog breed Cavalier King Charles Spaniel (CKCS), hearing disorders may be due to conductive hearing loss, which may occur with primary secretory otitis media (PSOM), or due to sensorineural hearing loss, which may occur when there is damage or an abnormality of the sensory cells in the cochlea or the auditory nerve. Evaluation of a dog’s hearing ability is done using the brainstem auditory evoked response (BAER) test. However, in order to identify an abnormality on the BAER test, the results from an individual dog must be compared to normal BAER values.

PURPOSE OF THE STUDY:
The purpose of this study is to obtain BAER data from CKCS dogs between the ages of 1 to 2 years old with no history of hearing loss. This is a 2-day study. Procedures performed include hearing testing (BAER test), a Computed Tomography (CT) scan and Magnetic Resonance Imaging (MRI); study pays for all testing. Enrollment of dogs in the study has begun. If you are interested in possibly enrolling your CKCS dog in the study, please contact Dr. Cole at the telephone number or email address listed below. A pedigree is required for entry into the study, but will be kept confidential, as will all test results. Details of the study will be given individually on the phone or via email.

CONTACT:
Dr. Lynette Cole DVM, MS, Dipl. ACVD
Dermatology and Otology Service, Veterinary Medical Center
The Ohio State University, 601 Vernon L. Tharp Street, Columbus, OH 43210
Tel: (614) 292-3551
Email: cole.143@osu.edu
One in five pet dogs will develop kidney disease at some point. Proteinuric glomerular diseases may be the underlying cause of chronic renal failure in at least 50% of canine patients with chronic renal failure. Glomerular disease is a type of kidney disease in which the parts of the kidney (glomerulus) that help filter waste and fluids from the blood and keep protein from being removed is damaged. Proteinuria (protein in the urine) is the first indicator that there is a kidney problem.

This study will evaluate the effectiveness of giving a higher dosage of Enalapril to dogs suffering with kidney disease. Enalapril is an angiotensin converting enzyme inhibitor (ACE inhibitor or ACEi). What this means is that enalapril stops the angiotensin converting enzyme from producing a compound called angiotensin-II, which is a potent vasoconstrictor. Vasoconstrictors cause the narrowing of blood vessels which ultimately leads to decreased blood flow. Enalapril acts as a vasodilator because it blocks the production of angiotensin-II. Essentially, by acting as a vasodilator, enalapril acts to increase the diameter of the blood vessels instead of narrowing them. This increase in the diameter of the blood vessels results in increased blood flow. Enalapril can aid in increased blood flow to the kidneys, which has been shown to be beneficial to dogs that are experiencing kidney disease. It is believed that enalapril and other ACE inhibitors probably decrease the amount of protein that is allowed to escape through the kidneys and into the urine. The current recommended enalapril dose was established using 75% suppression of ACE activity as the desired pharmacodynamic end-point; however, recent studies in people suggest that higher ACEi doses required for maximal reduction in urine protein excretion may dramatically improve patient survival. Data collected from this study will not only benefit dogs but humans as well.

Inclusion Criteria/Client Compensation

Dogs must have primary glomerular disease. They cannot be diagnosed with nephrotic syndrome, a concurrent disease that will alter kidney function or any condition that would result in less than 12 months of survival. Your dog’s urine protein:creatinine ratio must be greater than or equal to 3.0. All other labwork will need to be within normal range. Owners must commit to returning to OSU for regular recheck appointments. The duration of the study is roughly 36 weeks with a variation of appointments depending on which group your dog is placed into. The study sponsor will cover all cost associated with the study once your pet is enrolled, however the owner is responsible for initial screening visit, purchase of enalapril, and any other medications needed for standard treatment of their dog’s kidney disease. If any unforeseen events occur these cost are covered up to $1000.

If you have questions, concerns or would like to schedule an appointment please contact:

Dr. Barrak Pressler
(614) 292-5337
barrak.pressler@cvm.osu.edu
or
The Clinical Trials Office
(Nicole Stingle or Tamra Mathie, clinicaltrials@cvm.osu.edu)
Spotlight Patient

Misty is a 3 year old Himalayan that presented to the OSU VMC Cardiology Service for Congestive Heart Failure (CHF) and hypertrophic obstructive cardiomyopathy (HOCM). The owner was given all the possible treatment options for Misty, and decided to enroll her into a cardiology clinical trial on 10/13/11. Misty did well throughout the 180 day trial, and continued to show no signs of CHF on physical exam, echocardiogram and thoracic radiographs. Misty completed the study last month, and at the appointment, the owner reported that Misty was doing great at home and was more active than when she started the study! She still showed no signs of CHF and the severity of her HOCM had improved since the beginning of the study. Due to these findings, we are cautiously optimistic about Misty’s long-term prognosis of living with HOCM.

Pet Funnies
Please click on the links below or visit our website http://vet.osu.edu/vmc/clinical-trials to find out more information about these and other clinical trials.

**Dogs**

**Orthopedic Surgery**
- Evaluation of Novel Spinal and Orthopedic Devices in the Dog
- A Randomized Clinical Trial of Cemented versus Cementless Total Knee Replacement (TKR) in Dogs

**Radiology**
- Computed Tomography for Evaluation of Canine Intestinal Obstruction

**Cardiology**
- Evaluation of pimobendan in dogs with cardiomegaly caused by preclinical mitral valve disease - EPIC

**Oncology/Radiation Oncology**
- Palladia/Piroxicam/Cyclophosphamide Treatment for Dogs with Osteosarcoma
- Examining the Efficacy of Toceranib Phosphate (Palladia) as a Primary and/or Adjuvant Agent in the Treatment of Canine Nasal Carcinoma
- A Pilot Study of Vinblastine/Palladia Therapy for Canine Transitional Cell Carcinoma
- Kit mutation and localization status as response predictors in canine mast cell tumors treated with toceranib or vinblastine: A multi-center response-adaptive randomized trial
- Compassionate use of KPT-335 in dogs with Spontaneous Cancer
- Pulse Toceranib plus Lomustine for the Treatment of Unresectable Canine Mast Cell Tumors: A Multicenter Study Led by Colorado State University

**Neurology**
- Characterization of the cervical spine of Great Danes with and without signs of cervical spondylomyelopathy
- The role of hsp70, IL-1β and TNF-α responses in recovery after canine spinal cord injury; a pilot investigation

**Dermatology/Otology**
- Atopica
- Brainsstem auditory evoked response testing in normal hearing cavalier king charles spaniel dogs

**Cats**

**Cardiology**
- Acute effect of Ivabradine, a novel I-f current inhibitor, on dynamic obstruction of the left ventricular outflow tract in cats with preclinical hypertrophic cardiomyopathy

**Oncology**
- Palladia or Palladia plus Radiation Therapy in Cats with Oral Squamous Cell Carcinoma

**Equine**

**Orthopedics**
- Cell-Mediated Bone Morphogenetic Protein Gene Therapy for Bone Healing in Horses
- Autologous Blood Solution for Equine Osteoarthritis

**Ophthalmology**
- Histological effect of semi-conductor diode laser trans-scleral cyclophotocoagulation on buphthalmic equine globes
Congratulations!

On Friday June 29, 2012 the Department of Veterinary Clinical Sciences and the Veterinary Medical Center held the 2012 Resident and Intern Certificate Presentation and Reception at the Ohio Union. This annual event, attended by over 170 people, is a celebration of the success and achievement of our residents and interns, and marks the culmination of one phase of their careers.

**Residency Certificates**

- Dr. Laura Leigh Gray, Dermatology
- Dr. Katarzyna Dembek, Equine Medicine
- Dr. Nate McClellan, Equine Surgery
- Dr. Becky Pentecost, Farm Animal Medicine & Surgery
- Dr. Kari Foss, Neurology
- Dr. Matthew Sherger, Oncology
- Dr. Bridget Urie, Oncology
- Dr. Ilva Grundmann, Radiology
- Dr. Katy Townsend, Small Animal Surgery

**Internship Certificates**

- Dr. Emily Schaefer, Equine Field Service
- Dr. Carrie Belles, Farm Animal Medicine & Surgery
- Dr. Melissa Roth, Small Animal Community Practice
- Dr. Kathryn Rhue, Small Animal Emergency & Critical Care
- Drs. Megan Brown, Jessica Lipsett, Danielle Smith, Francesca Venturi, Jessica Ward: Small Animal Medicine & Surgery
- Dr. Aimee Brooks, Small Animal Surgery

Please Welcome Our New Staff!

**Luis Feo Bernabe, DVM**

Luis graduated from the University Autonoma of Barcelona in 2011 with his degree in Veterinary Studies. During his time in Barcelona he was involved in many aspects of Internal medicine, hematology and cancer. During this time he published a few topic articles and presented a poster at The Southern European Veterinary conference. In the summer of 2011 he did an Externship at the OSU-VMC in Oncology and Internal Medicine for 3 months. He also did a Small Animal Medicine and Surgery internship in the Veterinary Teaching Hospital of Barcelona before he accept the position in the OSU-VMC Clinical Trials Office. He is really interested in the development of Clinical Trials and his goal is to become Board certified in Oncology and Internal Medicine.

Welcome to the CTO Luis!

**Ashley Smith, RVT**

Ashley is not a new face here at the Veterinary Medical Center. For the past four years she has been working in the Oncology Department. Ashley’s daily work involved a variety of things from receiving patients for rechecks and treatments, helping students with blood draws and minor procedures, talking to clients, arranging refills, facilitating oncology clinical trials, administering chemotherapy to cats and dogs with cancer, taking care of the newly remodeled oncology space and microscope, helping with Greyhound wellness, and much more. She has also been cross-trained in the VMC blood bank. She is an active member on the Remembrance Ceremony committee.

We are happy to have Ashley join our team!

**PELOTONIA**

AUGUST 10–12, 2012

To register or for more information please visit

http://pelotonia.org/