



## Evaluating Preventive Therapy for Ligament Disease Siao Sia Goh, BVSc, Colorado State University, First Award

The most common cause of lameness and ongoing knee arthritis in pet dogs is rupture of the cranial cruciate ligament (CCL). This injury typically occurs during normal activities and is thought to result most frequently from a progressive deterioration and weakening of the ligament. Pet owners spend thousands of dollars annually for the medical and surgical management of this condition. Unfortunately, it is very common for dogs to incur the same injury in the CCL of the opposite knee, within two years after the initial injury, making management of symptoms even more difficult and costly.

Funded by Morris Animal Foundation, researchers from Colorado State University are conducting a randomized, blinded and placebo-controlled clinical trial in client-owned dogs being treated for CCL injury. They are testing the hypothesis that stem cell therapy can be used to reduce the rate of injury in the at-risk opposite knee. They hope that injecting stem cells into the joint may slow or prevent further degeneration of the CCL.

So far, the researchers have completed the patient enrollment phase of the study, reaching their target goal of 40 dogs. They continue to check the patients periodically over an 18-month time frame, comparing rates of contralateral CCL rupture between dogs receiving stem cell therapy and placebo-treated dogs. Final results are expected by mid-2015 when patient follow-up is complete.

Given the discomfort and high cost of traditional CCL rupture treatments, development of an early interventional, minimally invasive treatment for CCL injury may prevent many dogs from suffering the consequences of this debilitating joint condition. A treatment to slow early CCL degeneration would be a welcome weapon in the arsenal of veterinarians and pet owners managing at-risk patients. (D13CA-311)