

## **2107: Landmark Clinical Trial to Establish the Evidence-Based Use of Regenerative Medicine to Treat Tendon Injury in Dogs**

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Grant Amount: \$254,509

Project Dates: July 1, 2014 - June 30, 2016

Abstract: Regenerative medicine is a rapidly developing field with the potential to transform the treatment of canine disease. The ability to repair damaged tissue and treat diseases once believed to be incurable may soon be a reality. However, there are concerns that some techniques are being used prematurely. Due to the lower regulatory barriers in veterinary medicine, company-sponsored regenerative medicine products and techniques are currently used in general practice and specialty hospitals without the benefit of having been preceded by stringently controlled, independently funded clinical trials. As a result, techniques vary widely and the evidence that they work is anecdotal at best. The AKC Canine Health Foundation has made the evidence-based practice of regenerative medicine a major focus within our research portfolio. Through an ongoing commitment to fund research studies that will inform the veterinary community in the use of safe and effective regenerative medicine techniques, we intend to protect dog owners and support veterinarians with innovative technology that will consistently improve outcomes for dogs. In support of our effort to provide evidence-based regenerative medicine research, CHF is funding this landmark study to evaluate the effectiveness of Platelet-Rich Plasma (PRP) and stem cells in the treatment of the most common sporting injury in dogs: supraspinatus tendonopathy (similar to the rotator cuff injury in humans). Tendon injuries in dogs often progress undiagnosed and result in chronic lameness and pain. Ultimately, unassisted tendon healing results in scar formation and reduced function of the joint and surrounding muscle tissue. PRP and stem cell therapies aim to accelerate and promote healing through tissue regeneration and reduced scarring. Dr. Jennifer Barrett, MS, PhD, DVM, DACVS, DACVSMR, and Dr. Sherman Canapp, DVM, MS, CCRT, DACVS, DACVSMR, propose to conduct the first randomized, placebo-controlled clinical trial evaluating the effectiveness of PRP, adipose-derived, cultured stem cells (ASC) and commonly used stromal vascular fraction (SVF) cells. This will be the first study to directly compare efficacy of intratendinous injection of ASC versus SVF, both of which are currently commercially available despite having limited scientific evidence of efficacy. The study will be conducted at the Veterinary Orthopedic and Sports Medicine (VOSM) Group in Annapolis Junction, MD in order to recruit real-world cases in a clinically relevant, state of the art canine sports medicine environment. Using the gold-standard Blinded, Placebo Controlled clinical trial design, Drs. Barrett and Canapp will not only identify an effective treatment for supraspinatus tendon injury, but their research will have a profound impact on the treatment of a wide array of musculoskeletal conditions affecting dogs and humans.

Cash Contribution: \$2,500.00

Commitment Date: August 7, 2015

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