

D18CA-017

Finding Ways to Block Hemangiosarcoma Tumor Growth

UNIVERSITY OF MINNESOTA

Study Start Date: 10/1/2017

Projected Duration: 2 years

Study Cost: \$177,316

SUMMARY: Researchers will investigate how hemangiosarcoma cells use cholesterol and lipids to promote tumor growth and look at ways to block tumor cells from using these metabolic fuels.

DESCRIPTION: Hemangiosarcoma is an aggressive disease that is rapidly fatal in dogs. Studies suggest that hemangiosarcomas rely on cholesterol and lipids to fuel tumor growth. Researchers will further investigate how cholesterol and lipids promote cancer growth, and delve deeper into understanding the cell signaling pathways activated by these metabolites. The team also will use existing drugs to interrupt these processes to kill tumor cells. Findings will be used to optimize drug and chemotherapy combinations to provide better treatment options for patients. The development of new and less toxic approaches to treat canine hemangiosarcoma is an important step in improving survival rates for dogs diagnosed with this deadly cancer.

D18CA-310

Using Advanced Imaging to Diagnose and Monitor Spinal Cord Disease

CORNELL UNIVERSITY

Study Start Date: 9/1/2017

Projected Duration: 2 years

Study Cost: \$66,565

SUMMARY: Researchers will evaluate an advanced imaging technique to improve the diagnosis and monitoring of spinal cord lesions associated with canine degenerative myelopathy, a spinal cord disease of dogs.

DESCRIPTION: Canine degenerative myelopathy (CDM) is a neurodegenerative disorder that affects the spinal cord of dogs. The condition is progressive, has no treatment, and often results in euthanasia within six to nine months of diagnosis. Conventional MRI can't detect the lesions caused by CDM which makes the disease challenging to diagnose and monitor. An advanced MRI technique called diffusion tensor imaging has been successful at detecting microscopic lesions in diseased spinal cords in humans, and researchers will see if this technique also is capable of detecting spinal cord lesions caused by degenerative myelopathy in dogs. In addition to providing a much-needed diagnostic tool, this technique will provide a way to monitor lesions for future studies assessing new drug therapies for dogs with this devastating disease.