

## Using Advanced Imaging to Diagnose Canine Degenerative Myelopathy

Spinal cord lesions caused by canine degenerative myelopathy are undetectable on standard clinical MRI limiting our ability to diagnose and monitor the disease. Studies in people with a similar condition, Lou Gehrig's disease, have shown that an advanced MRI technique called diffusion tensor imaging is able to detect the microscopic changes in the spinal cord caused by this condition. This project aims to determine if this technique is able to identify the spinal cord lesions caused by degenerative myelopathy by comparing imaging results from a group of dogs with the condition with a normal group. Diffusion tensor imaging has the potential to become a reliable imaging method for the diagnosis and monitoring of degenerative myelopathy.

**ELIGIBILITY** This study will recruit two groups: 1) Dogs with a positive SOD1 test for degenerative myelopathy that are showing clinical signs consistent with degenerative myelopathy and 2) Dogs with a normal neurological examination that are over the age of 8 years.

**COMPENSATION** The cost of the MRI scan and pre-anesthetic blood work will be covered by the study.

**OWNER RESPONSIBILITIES** Enrolled dogs will be admitted to the Cornell University Hospital for Animals in the morning for an initial examination and blood work, then will be transported down campus to a special MRI facility. There they will undergo anesthesia, have the MRI performed, and then will be returned to owners at the hospital in the late afternoon.

**CONTACT/SCHEDULE AN APPOINTMENT** For questions or more information contact Dr. Philippa Johnson or the clinical trials coordinator at 607-253-3060 or email vet-research@cornell.edu



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