**Title:** Optical coherence tomography for surgical margin assessment: The cutting-edge for feline injection-site sarcomas

**Investigators:**
Janet Grimes, DVM, MS, DACVS-SA (UGA surgery faculty)
Laura Selmic, BVetMed, MPH, DACVS-SA, MRCVS (The Ohio State University)

If interested, please have your primary veterinarian request additional information through the Surgery service by calling the Clinical Trials Coordinator at 706-296-7818.

**Study description:**
In many cats with injection site sarcoma, despite performing aggressive surgery in an attempt to remove the entire tumor, tumors may recur because tumor cells may be left behind. Current methods of evaluating the surgical margin for the presence of tumor cells are inadequate for predicting recurrence of the tumor. The purpose of this study is to determine the diagnostic accuracy of optical coherence tomography (OCT) for detection of incomplete margins in feline injection-site sarcoma. Optical coherence imaging is a type of optical imaging that can evaluate tissues with microscopic detail without damaging them and may be a novel method for determining the completeness of the surgical margin.

**Inclusion criteria:**
1. Cats with histologically or cytologically confirmed soft tissue sarcoma or injection site sarcoma
2. Cats undergoing surgical removal of sarcoma
3. Signed owner consent

Cats will undergo surgical removal of the injection site sarcoma tumor per standard of care. The tumor tissue will be sent to The Ohio State University to undergo optical coherence tomography (OCT) of the tumor. Following OCT, the tumor will be evaluated with routine histopathological analysis (in the same manner as it would have been evaluated without the addition of OCT). Histopathology results will be returned to the primary surgeon for case management post recovery.

The study will pay for the cost to ship the tumor to The Ohio State University and histopathologic assessment of the tumor. Clients will be responsible for all other costs pertaining to their cat’s diagnosis, surgery, and treatment.

**Duration of study:**
The study is currently OPEN.

**Potential benefits to veterinary medicine:**
This clinical investigation will be the first evaluation of OCT imaging as real-time intraoperative assessment for surgical margin assessment in companion animals. It may aid future studies by assessing if OCT imaging can improve treatment choices and outcomes, and if it can be used successfully for different tumor types to help other companion animals.