GENE EXPRESSION IN CANINE LYMPHOMA
Comparing SETD2 and miR106b5p

What is DLBCL?
Lymphoma may affect any organ in the body, but most commonly originates in lymph nodes, before spreading to other organs such as the liver, spleen or GI tract. Diffuse large B cell lymphoma (DLBCL) is one of the most commonly diagnosed malignancies in dogs.

Why Does it Matter?
Because canine and human lymphomas share many characteristics, canine DLBCL research potentiates molecular discoveries and the establishment of novel therapeutic targets in canine and human patients alike.

What Could Cause DLBCL?
There are many genes that have been implicated in the development of DLBCL. Our research focuses on SETD2, a tumor suppressor gene, which is frequently mutated in canine DLBCL. A gene called miR106b-5p negatively regulates SETD2.

SETD2 and miR106b5p
Our project compares expression of SETD2 and miR106b-5p in canine DLBCL cells. Preliminary research shows a negative correlation between expression of these genes; when miR106b-5p is high, SETD2 is low. This finding lends support to the importance of SETD2 in canine lymphoma.

Important Findings
Altered expression of miR106b-5p represents a novel mechanism by which SETD2 is suppressed in canine DLBCL. Understanding the mechanisms behind inactivation of genes in DLBCL may lead to new approaches to control or treat this malignancy. In future investigations, we will verify the mechanism by which SETD2 contributes to lymphoma progression and explore alterations in SETD2 therapeutically.

FUTURE DIRECTIONS