



03011: A GD3 Nano-scaled Liposomal Cancer Vaccine Clinical Trial for Canine Hemangiosarcoma

University of Florida: Principal Investigator: Rowan Milner, BVSc Total Grant Amount: \$156,065
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Hemangiosarcoma, a cancer of the lining of blood vessels, is a devastating cancer of numerous large breed dogs. Hemangiosarcoma (HSA) often presents as an emergency in otherwise healthy individuals with evidence of acute abdominal bleeding or bleeding around the heart. Owners are often distraught by the unexpected news. HSA is rarely diagnosed in the early stages as imaging of the abdomen is often not included in the yearly physical examinations. Sadly, most dogs die within 2-3 months of treatment because of the advanced stage (splenic rupture) of the cancer and spread to the lungs and other organs.

The addition of chemotherapy improves survival times for dogs with splenic HSA, but only on average 145-180 days. Regrettably, there has been little improvement in survival in dogs with HSA in the last 30 years. However, modifying how the body's immune system reacts to the cancer offers new hope for improved survival. This research proposes to use a vaccine that investigators have extensive experience with in canine melanoma and bone cancer (osteosarcoma). New preliminary research indicates that the vaccine target, GD3, is present in HSA, similar to melanoma and osteosarcoma use. All dogs will get standard-of-care treatment and randomized into two groups – one getting the GD3-based vaccine and the other group receiving placebo. Since melanoma and osteosarcoma have shown promising results, investigators hope that dogs with HSA respond similarly to the vaccine.

Contribution: \$5,000

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