

**Funded Study:** Safety of B7H3 CAR T cells in Dogs with metastatic osteosarcoma or hemangiosarcoma

**Study Title:** Evaluating the safety and immune activities of B7H3 targeting chimeric antigen receptor T Cells in dogs with metastatic osteosarcoma or hemangiosarcoma.

**Purpose of Study/Background/Objectives:** The purpose of this study is to investigate the safety and activity of genetically-modified immune cells (specifically chimeric antigen receptor T cells, CAR T cells for short) for specifically recognizing and eliminating tumor cells that express a specific surface protein called B7H3 when intravenously infused into pet dogs with spontaneous cancers.

**Inclusion Criteria:**

- Dogs with a cytologic or histologic diagnosis of osteosarcoma or hemangiosarcoma with metastasis
- Patient must be in good overall condition

**Exclusion Criteria:**

- Patient has other serious illness
- Patient has received prior chemotherapy or radiation treatment within 4 weeks of study enrollment
- Patient is receiving immunosuppressive therapies

**Procedures:** Canine patients will receive a series of chemotherapy using cyclophosphamide prior to receiving intravenous infusions of genetically-modified, activated T cells (CAR T cells) following a preset treatment and reevaluation schedule. During and/or following completion of CAR T cell therapy, blood will be collected for analysis to confirm successful engraftment of CAR T cells within lymphoid organs and blood. In addition, tumor tissues might be collected to confirm B7H3 epitope expression, as well as successful CAR T cell infiltration into tumor tissues.

**Compensation:** The study will defray costs associated with non-invasive techniques and radiologic aspects of the project, including blood and radiologic tests, as well as hospitalization required. Possible beneficial effects of this new experimental treatment protocol in canine oncology patients include the development of a new therapeutic strategy for managing solid tumors and associated metastatic lesions that express the B7H3 epitope.

**Contact Information:** Please feel free to contact our Clinical Trials Coordinator, Rebecca Kameron, at (217) 300-6453 or [rmoss81@illinois.edu](mailto:rmoss81@illinois.edu) to refer a patient or for any additional information. Referring veterinarian and client calls are welcome.