

Advancement in the field of cancer treatment is critically tied to the human immune system. For example, a healthy individual's immune system can eliminate cells that become malignant. However, when the immune system is overwhelmed by increased disease or immunosuppression, cells can transform and escape immune action. Cells that escape the immune system rapidly proliferate, leading to the disease state known as cancer. Understanding how these malignant cells evade the immune system is key in re-activating the immune system to clear the cancer.

This project will use cutting edge technology to identify the best strategy for reactivating specific immune cells in brain cancer cell lines. Promising targets will be tested for efficacy using imaging techniques that allow for visualization of tumor tissues. Ultimately, we hope to develop a novel avenue for cancer immunotherapy treatment.