

## 2024-2025 Outstanding Thesis Award Winner Jennifer Tran



Jennifer Tran

The winner of the outstanding thesis award in the Mathematics, Computer Science, Biological Sciences, Physical Sciences, and Life Sciences category is Jennifer Tran, for her thesis, [\*The Development of MAGMAS Inhibition as a Potential Therapeutic Target in Temozolomide Resistant Glioma\*](#), written for her Master of Science in Biology. Chaired by Dr. Nicole Bournias-Vardiabasis, Tran's thesis seeks to gain a better understanding of resistant forms of brain cancer and explores methods for potential treatment.

Tran says that one of the reasons she chose to pursue cancer research is that the disease impacts so many people, directly or indirectly. "We all know someone that's affected by it, whether through family, friends, or friends of friends. I have a couple of family friends who were diagnosed with various types of cancer and I can see the hardship that these patients go through."

Tran was awarded a CIRM Bridges Scholarship, which enabled her to conduct her thesis research at a cancer lab at the University of California, Irvine. Her study examined the role of a mitochondrial protein called MAGMAS, which is thought to support tumor cells' survival during chemotherapy, making them difficult to treat. They found that by reducing MAGMAS function, cancer cells were less resistant to treatment. Although more research is needed, the lab hopes that inhibiting MAGMAS will one day become an effective treatment strategy for GBM, as well as other cancers.

After graduating from CSUSB, Tran landed an internship at the National Institute of Health, which she says is giving her a wider perspective of cancer treatment.

"It's understanding the tumor microenvironment and how the tumor is adapting to therapeutics. So, it's more of an immunology side of understanding how it is immunosuppressive."

Tran plans to continue her work at NIH for another two years, then pursue an M.D.-Ph.D. program and become a physician-scientist, bridging the gap between lab and clinic. A San Bernardino native, she credits much of her success to the supportive environment at CSUSB.

"I'm very thankful for the many opportunities there. I like CSUSB because it brought more of a fostering environment between student and teacher. I gained a lot of the opportunities through talking with Dr. Bournias and through the CIRM Bridges program."