

## **DR. ELIZABETH YEH (2015)**

Application of a Connexin 43 (Cx43) Targeted Agent for the Treatment of Metastatic Breast Cancer

The goal of our research project was to determine if targeting of Connexin 43 is effective for treating metastatic breast cancer. We proposed to test the effect of ACT1, a Cx43 targeted agent, for the treatment of metastatic breast cancer.

### **Accomplishments:**

- Completed in vivo metastatic assays using ACT1 as a single agent.
- Generated and tested breast cancer cell lines overexpressing wildtype Cx43 or a gap junction deficient mutant of Cx43 (G60S) as a surrogate for ACT1 treatment.
- Completed and published a research manuscript for ongoing work on Cx43 in breast cancer (<https://www.ncbi.nlm.nih.gov/pubmed/?term=Dysregulated+Connexin+43+in+HER2-positive+drug+resistant+breast+cancer+cells+enhances+proliferation+and+migration>)
- Published two review articles on Cx43 and cancer (<https://www.ncbi.nlm.nih.gov/pubmed/?term=Connexin+43+in+the+development+and+progression+of+breast+cancer%3A+What%E2%80%99s+the+connection%3F> and <https://www.ncbi.nlm.nih.gov/pubmed/?term=An+update+on+minding+the+gap+in+cancer>)
- Used METAvivor data to submit an R03 NIH grant