Our sensory neurons allow us to detect dangers in the environment. Dysfunctional sensory neurons can cause painful conditions such as chronic pain and neuralgia. Different types of neurons grow and branch across the skin in patterns appropriate for the types of stimuli they detect. But, it is unclear what exactly happens during development to cause these differences. Branching patterns are likely regulated by cell-surface adhesion proteins acting between the skin and the neurons. We are studying one of these adhesion proteins that is expressed specifically in sensory neurons, amigo3. Using CRISPR/Cas9, we have knocked out the function of amigo3 in zebrafish and are searching for developmental changes in sensory neuron growth. We hypothesize that these mutant fish will show reduced branching and growth in the trigeminal ganglion and Rohon-Beard neurons, causing them to respond abnormally to stimuli in the environment.