



Kenna Sherman

As an intern for ACE, I have been gifted many opportunities that helped me to grow into an empowered competent scientist. I am currently in my second year at the University of California, Santa Barbara studying Biology in the College of Creative Studies. For the past few months, I have been working under the guidance of Dr. Amy Boddy looking at cancer from an evolutionary perspective. For my first project, I worked with the Santa Barbara Zoo to gather information on cancer rates among their animals. This data was used to create graphs showing a possible correlation between life history traits (life span, gestation length, body mass etc.) and cancer. It was exciting to discover that the data obtained from the Santa Barbara Zoo matched the data collected from other zoos. I am currently working on another project looking for possible immune modulating pathways in mammals. I looked at over 600 genes and found more than 400 that have potential to be involved in immunity. I am looking forward to investigating the function of these genes more and studying the specific regions in each gene that may have undergone positive regulation. I am especially interested in researching the 200 immunity

related genes within Cetaceans, commonly known as whales, where there has been an identified change across the entire lineage. Since Cetaceans have rather low cancer rates, this could help us find genes that are suppressing tumor formation or proliferation.

In the coming years, I hope to pursue a PhD in cancer or genetics research. Ultimately, I would like to become a professor at a research university where I can teach and run my own lab. I am interested in developing cancer treatments using genetic and biomedical tools. Working with ACE has helped me to discover my passion for research and allowed me to explore many different fields that I would not have otherwise had exposure to. I have been given many unique opportunities, such as participating in the mini-DREAM challenge and working with veterinarians at the zoo, and I have gained many skills that I will use for the rest of my scientific career. When I began my internship with ACE, I had no previous research experience and was very excited to get involved in the projects. It has been a great experience learning how to apply the scientific method to real questions and to think like a scientist. Additionally, working with ACE allowed me to realize my passion for genetics and cancer and get involved in original, innovative research. I am extremely grateful to ACE and Dr. Boddy for allowing me to be part of an amazing network of scientists and for such a wonderful introduction to research.