



# MARCH OF DIMES HIGH SCHOOL SCIENCE WEEK



## PANELIST PROFILE

**Name:** Sienna Rocha

**College:** University of California, Davis - Global Disease Biology B.S '21 Art History, Minor

**Lab/Department:** [Molecular and Cellular Biology Laboratory of Christina Towers](#)

**What do you do?** I am a research assistant in Dr. Towers Lab at the Salk Institute. I assist in various research projects where we are investigating the underlying mechanisms by which cancer cells resist autophagy inhibition to continue growth. To do this we use tools like gene editing in cancer cell lines to figure out the specific mechanism's cells use to become resistant to treatment.

**Why is it important?** Cancer treatment often fails because cancer cells find ways to circumvent treatment and become resistant. Treating cancer is like playing chess. We need to think a few moves ahead and try to stop it before it's next move. Our work is trying to figure out a cancer cells next move and if we can stop it treatments will be more effective.

**How did you learn about this career?** I stumbled upon it! I am first-generation and will be the first in my entire family to earn a doctorate. Transitioning to college, I didn't know my career options so I applied to as many different opportunities as I could. I got accepted into the Biological Undergraduate Scholars Program (BUSP) at UC Davis which pushed me to work in a research lab where I fell in love with research. I then got funded by the Continuing Umbrella of Research Experiences (CURE) program to continue pursuing research as an undergraduate and I just never stopped! Through programs like CURE and BUSP I was able to interact with other researchers and ask questions about their careers.

**Why are you passionate about your work?** Working in research allows me to be constantly learning and thinking about new ways to solve problems so every day is a new challenge. Most importantly, I learned from a young age how cancer and cancer treatments cause pain to patients and families and I want to do everything I can to improve therapies. In addition, some cancers disproportionately affect minority communities and growing up as a Latina in a large Latino community, this problem personally affects families like mine.

**How long have you been doing it?** I'm just starting out! I worked in a research lab during my second year of college until I graduated in 2021. Right after graduation I applied to jobs at the Salk to gain more experience before applying to graduate programs. I'm planning to apply to PhD programs for cancer research this upcoming fall, so I still have a long way to go.