

I was born and raised in Las Vegas, Nevada. As a student I gained a passion for science that eventually led me to become a licensed Emergency Medical Technician. After working in healthcare for many years, I started taking classes with the aim of becoming a doctor. However, after being introduced to scientific research during my studies, I felt I had found a new calling. I was able to secure two grants that funded my undergraduate research on a topic that I proposed. I was awarded the Nevada System of Higher Education Regents' Scholar Award, in part because of this undergraduate research. I graduated from Nevada State College with a Bachelor's of Science, with a major in biology and a minor in chemistry. Currently, I am pursuing my PhD in biochemistry at the University of Nevada Las Vegas. I am exploring the mechanisms of germination and antibiotic resistance in sporulating bacteria. Expanding my knowledge and finding ways to apply science in a variety of domains drives my curiosity and research. My experiences have encouraged me to participate in collaborative science where information is freely shared so that it may have the broadest and most positive impact. After completion of my PhD, I hope to pursue a career in an environment where my research can contribute to novel discoveries.

Bacterial spores are resilient and could persist for decades on spacecraft surfaces. Both the Phoenix assembly clean room and International Space Station have shown evidence of contamination by spores, particularly of the genus *Paenibacillus*. Bacterial spores become vulnerable upon germination, and hence, we hypothesize that forcing spores to germinate will permit easier surfaces disinfection. To test this hypothesis, we will assess genes required for spore germination in a model organism, *Paenibacillus larvae*. We will then test metabolites that trigger the germination of wild-type and mutant spores. Finally, we will test germinated spores for increased susceptibility to common disinfectants.