

Scientist of the Month



Christian Bolton

Christian Bolton, a third year BLaST Scholar, is a junior at UAF pursuing a BS in biological sciences with a concentration in biomedicine. He is originally from Mississippi and has lived in many places being part of a military family. He will graduate in May 2024 and plans to attend medical school to become a cardiologist. In his free time, he enjoys playing basketball, watching Netflix and hanging out with friends.

Research

As a BLaST Scholar, Bolton has worked on many different research projects. His first research project involved measuring the efficacy of a text-messaging program to improve fruit and vegetable consumption with Dr. Andrea Bersamin, a biology professor at UAF. Another previous research project was exploring cancer cells' ability to repair themselves after being exposed to radiation in Dr. Andrej Podlutzky's lab. His current project examines warming temperatures in the Antarctic that are affecting marine wildlife. He is evaluating enzyme activity in different tissues of Antarctic fish to evaluate the ability of these fish to anaerobically generate ATP in a process called glycolysis. "This research is important, as temperatures of Antarctic waters are getting warmer due to climate change, and therefore containing less oxygen. We are concerned with how this will affect these creatures' abilities to produce energy." Bolton said, "By working with Dr. Kristin O'Brien, I learned that there are similarities between how fish and humans react to certain stimuli. The research done on fish can be translated and used for humans as well. This revelation has demonstrated to me how One Health connects humans,

wildlife, and the environment. It is exciting to understand how things are structured and work together to form a more balanced, healthy habitat." He adds, "This is why I fell in love with biomedicine and human anatomy. I am excited to see the results of our research."

Mentoring

Bolton has been provided with many experiences and skill sets with different mentors. He would like to thank Dr. Andrej Podlutzky (previous BLaST Faculty Pilot Project awardee), Dr. Andrea Bersamin (BLaST Faculty Pilot Project awardee) and his current mentor Dr. Kristin O'Brien, a professor of biology and wildlife. "They have each given me guidance on how to become a proper researcher with well-structured training and availability for when I have questions. I also receive freedom to learn and grow on my own as they provide me with an environment that accepts mistakes as learning experiences and teachable moments. I would also like to thank my RAMP, Hannah Robinson, as she has been with me throughout my transitions between labs as well as fantastic support for me as a student and BLaST scholar."

Top left: BLaST Scholar Christian Bolton, Fairbanks, Alaska. (Photo credit: C. Bolton, 2022)
Right: Bolton working in Dr. O'Brien's lab pipetting. (Photo credit: G. Snyder, 2023)

