

# Scientist of the Month



## Shadrach Stitz

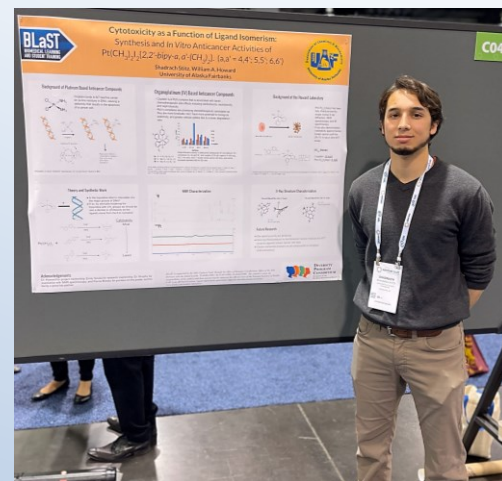
Shadrach Stitz is a second-year BLaST Scholar and a senior at UAF pursuing a BS in biochemistry. He grew up in a military family and lived in Texas, Missouri, and Iowa before moving to Alaska. He will graduate in May 2023 and plans to attend medical school. He enjoys the outdoors, hiking and fishing, and tinkering with snow-mobiles, motorcycles, and cars in his free time. He plans to apply to the master's in biochemistry program at UAF.

### Research

Stitz's current research project, "Cytotoxicity as a Function of Ligand Isomerism: Synthesis and Prospective In Vitro Anticancer Activities of Pt(CH<sub>3</sub>)<sub>2</sub>12{2,2'-bipy-a, a'-(CH<sub>3</sub>)<sub>2</sub>. (a,a' = 4,4'; 5,5'; 6,6')," created platinum based anticancer drugs and tested them against cancer cell lines for potential use as chemotherapeutic agents in Dr. William (Bill) Howard's lab at UAF. The compounds they tested directly interacted with the DNA of cancer cells, which is very significant, as there are still many unknowns about this process. Stitz shared, "By working with Dr. Howard, I was able to really get a hands-on appreciation for what I was learning in the classroom. It also introduced me to the chemical groundwork that goes into the creation of every drug or compound that we take for granted today." Stitz presented results along with other peers on this project at the 2022 Annual Biomedical Research Conference for Minoritized Scientists in November, held at Anaheim, California.

### Mentoring

Stitz thanks Dr. Howard, "for being an incredible mentor and providing me with such amazing opportunities to be a major part of really phenomenal research. His ideas and depth of understanding constantly motivate me to work harder in my classes to deepen my knowledge and better prepare myself to be a lifelong learner and scientist as a physician. He stepped aside and gradually gave me more and more responsibilities which gave me the confidence I needed to take the next step in our research and be a more confident and capable researcher." Stitz also thanks his previous BLaST Research and Mentoring Professional (RAMP) Emily Sousa, "for being super fun and always giving encouragement through all my ups and downs in research, school, and life; and for always pushing me to get outside for a weekend and "be a human." She helped me to acknowledge myself as a scientist and to really own my research and overcome imposter syndrome as I started to engage with hands-on science more and more."



**Top left:** BLaST Scholar Shadrach Stitz, Fairbanks, Alaska (Photo Credit: Chris Kim, Feb. 2023)  
**Left:** Stitz analyzing an NMR spectrum, Fairbanks, Alaska (Photo Credit: Dr. Carl Murphy, Feb. 2023)  
**Right:** Stitz presenting his research at the 2022 Annual Biomedical Research Conference for Minority Students (ABRCMS), Anaheim, California. (Photo Credit: Tyler Baker-Chapman, 2022)