My journey in ARM started with my curiosity in a rising problem across the world: mental health conditions. Over the course of history and to this day, society has always placed a greater focus on physical limitations over mental ones. When we hear about illnesses, we naturally tend to think about common physiological conditions like certain diseases or cancer. The brain is the most complex organ in our bodies, and I wanted to discover more about its role and mechanisms when considering people with mental conditions. In particular, I was most interested in doing research related to depression, as it's something I hear all the time from articles and simply peers who dealt with it at a certain point in their life. This sparked me to reach out to my mentor, Claire Nieder, who is a PhD student at the UCONN Department of Chemistry. I was keen to learn more about treatments for mental health and how they're continually being improved to this day. While searching for a project that aligned with my interests over the summer, I came across the Kienzler lab at the UCONN website. Their team focuses on photoswitches, and I saw the potential to use photopharmacology in a project related to depression. I had many discussions with my mentor Claire and we came up with a project to develop an alternative structure to bupropion, a common antidepressant prescribed to treat depression, in order to mitigate side effects that come with taking this prescription.

Throughout this process, there were many difficulties and unexpected challenges that I hadn't thought about prior to taking on this project. For instance, before carrying out the many reactions and processes that came with synthesizing my final product, there were many factors I had to deal with when considering the structure of the compound in the first place. For example, how would the new structure change its binding affinity for certain proteins? What processes would I need to use in order to carry out the purification process, how would I know if the products I ended up with along the way were what I intended them to be? These questions forced me to delve deeper into related research projects and articles posted by other researchers. One key moment was when I went through numerous articles and discussions to ensure that my design for my final product was at least viable. I had many pages of notes from articles that I memorized to ensure I understood bupropion's function and its interactions with other systems in the body. These challenges I faced required much of my time, and I managed it by spreading out the time I devoted to this project each day. I also devoted a significant part of my weekends for this project as well, but I ensured that I did enough to the point where I wouldn't feel like it was overwhelming or a burden on me.

The part of this project that I feared the most was my attitude and relationship with my mentor. I had never worked with professors or graduate students before, and I was especially nervous about making a bad impression. I didn't know what to expect from them, like if they would be harsh on me or if they would get annoyed if I asked too many questions. I was nervous the first time I met my mentor, but as I met her more and more often to work on my project, it became less stressful and more comfortable to talk with her about my next steps. I got better at keeping discussions straightforward and focused, trying to assert a professional attitude. My mentor was really nice and at times we talked about things outside of my ARM project. This was really helpful when I dealt with certain difficulties, as I got more comfortable communicating with her through emails about questions or concerns I had, especially at the beginning of the year when I was trying to find a direct pathway for my project. Through her mentorship, I learned the importance of maintaining a professional attitude in a field of work while also being comfortable in that field.

My conversations with my mentor helped me better prepare for the questions asked upon me at the STEMposium. I was excited to talk to doctors and researchers and people who had no general understanding of my field of work and felt proud to be able to show off my hard work throughout the year. My most memorable conversation was with someone who has depression and actively takes prescriptions to treat it. It was nice to talk with someone who was directly related to my research. At the beginning of the year, I worried I wouldn't be capable of carrying out such a project like this one. But now, I see someone who has the potential to make significant contributions in the future.

I greatly enjoyed my ARM journey and would definitely say I made the most out of it. If I could do ARM all over again, I think I would expand out of my current field of work into something like microbiology. This ARM experience has influenced me to heavily consider the research field as a future career. For future students, I recommend spreading your time out evenly and ensuring that you don't make it a burden at times for deadlines but something you constantly enjoy doing.