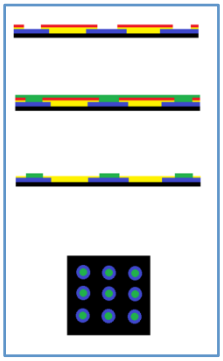
After reading the brief overview of the research project I was going to be a part of, I was thoroughly overwhelmed on the first day of RET. That feeling did not necessarily change for the first few days when we were learning about biophotonics and physics. Eventually however, my anxiety dwindled as I realized that I did not need to be a specialist in light waves to stay afloat in the lab. Furthermore, all the researchers I was working with were more than happy to help me understand topics that I was confused on. As the summer went on, I continued to learn more and more information about our research topic to the point that I was able to make suggestions during our lab meetings that were not completely ignorant. I looked forward going to the lab each day to see what progress we could make, brainstorm new ideas to fix the problems, and to spend time with other people in the lab. Taking part in RET really showed me how social research is. Each person in the lab had their area that they specialized in and everyone had something valuable to contribute during our lab meetings.

Our research focused on binding antigen to a silicon dioxide chip to act as a detector for antibodies. In other words, we bound antigens that are specific to prostate cancer on a chip which we then soaked in a serum containing antibodies to this antigen in the hopes that it would bind to the chip. By trying to develop this technology such that we only need extremely small amounts of antibody present for detection, it would be able to act as an indicator test on a blood sample so that we can detect prostate cancer as early as possible. We spent most of our time this summer trying to construct the chip such that it was perfectly smooth and there was the greatest possible binding affinity between the antigen and the antibody.



Even though our research did not progress as far as we would have liked to see over the summer, the amount of knowledge that I gained is amazing. RET opened my eyes to how much research is actually going on around us, and that the research is on just about anything you can think of! I easily transferred my enthusiasm for research into my classroom by incorporating new technologies into my lessons. These topics really interested my students to the point that they were asking about camps that were based around STEM concepts. I also altered my pedagogy to be more based around problem based learning so that there was less teacher-based instruction and more hands-on learning. Furthermore, the BU CityLab will be coming to AWHS this summer for a week-long program in technology. Overall, I will definitely be using more STEM concepts and technology in my classroom so that I can expose my students to world of science research.