

Knowing I would be the only female of five attending Rensselaer Polytechnic Institute (RPI) for research, I arrived at campus quite terrified and timid. I was not sure if I was comfortable spending six weeks with the other four interns and neither did I know how I would cope in a completely new environment. However, within one day on campus, I knew my worries were unnecessary. Spending my summer at RPI was not only a once in a lifetime experience I will never forget, but it also introduced me to many adventures (science and non-science related).

Under my mentor, Dr. Richard Gross, I worked in a green chemistry laboratory which focuses on finding alternative technologies and substances to current and perhaps hazardous substances used at home or industrially. I was no doubt at first intimidated to be working among PhD students, graduate students and college undergraduates; however, I was not treated as a student who only attended high school. Instead I was treated as another scientist in the laboratory. Not only was I able to learn about concepts from people who had years of experience ahead of me, but I was also able to obtain a first-hand experience of how others worked in the laboratory setting. I even learned how to work independently while inquiring about information I was unsure about and at the same time sharing with others my work.

The specific research I conducted at RPI involved finding an alternative to chemicals used in wastewater treatments. While wastewater treatment plants are meant to improve the quality of water people use, some of the chemicals used may be toxic to humans or the aquatic environment, and cause long term effects to the environment. During coagulation-flocculation in some wastewater treatments, Polyethylene Glycol (PEG), a synthetic surfactant that has a toxic degradation, may be used. Not only is its degradation carcinogenic, but also toxic to the

environment. Thus, I focused on trying to find a more natural alternative to such synthetic surfactants and tested a specific natural biosurfactant and its modified forms to observe their ability as flocculants. Formulating my project procedure and obtaining the data in a short six weeks took a lot of work and effort, but I was able to do so with the assistance of my direct supervisor and other interns in the laboratory.

Beyond the laboratory environment, I was able to experience college campus and dorm life and even Troy life. Even though dining hall meals were provided for us, we did not find it hard to take a break and order takeout from the nearest Dominos or walk to nearby restaurants. After working at the laboratory on some evenings, myself and the other interns enjoyed friendly games of pool or walking around campus. Even on weekends we were able to explore the Farmers Market in downtown Troy or take a 1 ½ hour bus ride to the mall. From spending time at a bookstore in downtown Troy to working 8 hours in the laboratory, I was truly given an amazing learning opportunity.