Biochemistry Undergrad Spotlight

1. What is your academic standing, major, and favorite class taken so far at OSU?

   I am a 4th year biochemistry/pre-med student and my favorite class has been Biochemistry 5614, if not the entire biochemistry series. To put the science foundation gained from the biology and general/organic chemistry courses into the context of life was fascinating, especially the highly complex and integrative metabolic processes of our bodies.

2. What is your favorite aspect of working in the Biochemistry Labs?

   It is an awesome experience to join a lab with limited knowledge, get trained to understand the theory and methodology behind your work, and then become more and more independent over time as you develop your own research project. I never thought that as an undergraduate student, I would have an opportunity to contribute new knowledge that could shape the scientific community.

   With two years in *The Sotomayor Research Group*, I have had a wonderful experience in undergraduate research because of the people that surround me. Working with those that have different interests, levels of educational attainment, and backgrounds to solve a common goal not only motivates, but makes you realize what it takes to be successful. The mentorship that comes with research is indispensable.

3. What is the main focus of the research in your lab and what impact do you think it will make?

   As a member of *The Sotomayor Research Group*, I am studying a portion of a protein complex known as the tip link, a core component of vertebrate hearing. From protein biochemistry to X-ray crystallography, I get to utilize a wide range of techniques with the goal of elucidating the molecular mechanisms underlying normal hearing and deafness. Ultimately, by understanding the mechanisms at play, our lab will be able to manipulate the system and contribute to curing some forms of deafness, whether genetic or noise-induced.

   Check us out: https://research.cbc.osu.edu/sotomayor.8/

4. How would you encourage prospective students to engage with the Biochemistry Department?

   If you are a biochemistry student, I would strongly recommend enrolling in Biochemistry 2900H, a course offered in the Autumn semester that allows you to listen to various

professors in the department and join a lab based off of your interests (if a spot is available). Equally effective, do not hesitate to contact a professor expressing your interest in their lab; the worst they can say is “no thank you”. Most importantly, professors are people to that are generally very friendly, easy to talk to, and excited that you have taken interest in their work. Also, research forums are a great way to interact with your peers and identify subjects that may be of interest to you.

5. What advice would you give to future students studying Biochemistry?

   Do NOT let your current knowledge or academic standing hold you back from partaking in research. From personal experience, I arrived at Ohio State without a strong foundation in science; illustrated by the fact that proteins were foreign to me until my first biology course. Honestly, I was intimidated by not only the complexity of research topics, but by the thought of working with other undergrads, graduate students, and post-docs that are brilliant. Yet, I caught on and you will as well; it is amazing how fast you learn when you can interact with science outside of a textbook.

   Based off of my experience in and around the research community at The Ohio State University, I would advise any future biochemistry student to make it a priority to partake in research; whether you want to get a PhD, go to professional school, or join the workforce right out of college. And do not feel constrained to biochemistry research, explore the many options available and pick a group that suits your interests whether the subject is interpretative dance, the impact of music in developing nations, or studying extended care for piglets. The options are endless and the impact on your education tremendous. Best of luck!