

STEM Exploration and Engagement Scholars Program; First Year Interview Assignment

The Ohio State University

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### Introduction

My first semester at The Ohio State University has been anything but what was expected. Despite this, I have not lost sight of my goals and purpose for attending this large university of my dreams. I applied to The Ohio State University last fall knowing I wanted to become a doctor and medical researcher (MD/Ph.D). I want to do my research in Type 1 Diabetes, for I am a Type 1 Diabetic. Therefore, when tasked with finding interviewees, my main objective was to center it around my research interest. When doing this, I found the most valuable research-focused interviews were with the upperclassman and graduate students that I selected. In light of this, I had to re-evaluate my selection process for the professor I wished to interview. Finding what type of research I wanted to get into and which research lab fulfilled those aspirations was one of my biggest first-semester endeavors. Another challenge this semester has been the fact that all my classes are online and that I lack personal relationships that come with regular college interaction. This hurdle led me to a particular STEM professor that has been very personable and encouraging throughout the semester.

### Methodology

I set up my interviews by reaching out to everyone via email. I first received a response from my graduate student, then my upperclassman, and then the professor I chose. For the graduate student, we met in person at the new Biomedical Engineering Research Complex on North Campus. For the upperclassman, we met virtually via zoom and then I followed up on some topics with the upperclassman, as well a few other upperclassmen that were recommended to me by the original upperclassman. Finally, for the professor, I replied to a previous personal email thread I had with this professor before the start of this semester to ask about a virtual

interview. My professor of choice responded very fast and we were able to meet virtually via zoom within a few days of my first email.

### Upperclassman

The upperclassman I met with was Max Wilberding, a senior in my Biomedical Science major. My goal of this interview was to get an upperclassman's perspective and tips for finding a research lab. Furthermore, I wanted to get a feel for how COVID-19 has affected time actually in the lab and what were some things he wished he would have known or had been told when he was in my shoes three years ago. I began by expressing my research interests, the reason for those interests, and my career goals. Max was very impressed and encouraging when saying that he thinks I am on the right track for preparing to apply for MD/Ph.D school. Max's main advice for my research lab search was to make sure the research environment is what I want. He expressed that the kind of research truly is not as important as it seems, there is a tendency to get invested in almost any kind of research you do regardless of what it is. However, the lab environment and the relationship you build with the principal investigator is what, in his opinion, makes or breaks the lab experience. Finally, Max was able to refer me to another Biomedical Science senior who is doing diabetes research now. As I came to find out via email, Dana Middendorf is the co-president of the Biomedical Science major and is in one of the diabetes labs that I had previously reached out to for research information. Dana also contributed some valuable information that I could put in my arsenal as I continued to consider, reach out and interview with research labs.

### Graduate Student

The graduate student I met with was Mr. Daniel Dodd, a Ph.D student in the Biomedical Sciences graduate program. Mr. Dodd is currently working in Dr. Daniel Gallego-Perez's

Nanomedicine Lab. My goal of this interview was actually to obtain a position in this research lab, where I would be mentored by either Mr. Dodd himself, or another Ph.D student I met named Mr. Luke Lemmerman. Seeing how my research review and interests stem more from my lab interview with the graduate student, I will include the research articles that I read prior to and after visiting the lab here. The first published article I read was an overview of the applications of nanomedicine in the current and future management of diseases like Type 1 Diabetes (Lemmerman, 2020). This article lays the foundation for the Type 1 Diabetes research project that I am interested in working on within the lab. This project is yet to start. However, it is projected to begin late this year or early next year according to Mr. Dodd. Mr. Dodd gave me a full tour of the new lab within the Biomedical Engineering Research Complex. We also had time to sit down and discuss volunteer status, training requirements, mentorship protocol, and even the effects of COVID-19 on lab operation. Following the interview, Mr. Dodd also emailed me another published article that was centered around some of the specific techniques that the diabetes project will be utilizing. The most notable technique being cellular reprogramming (Gallego-Perez, 2017). This nanomedicine technique is capable of taking skin cells and reprogramming them into insulin-producing cells (the type of cells type 1 diabetics lack). Therefore, with a high interest in this research and a great interview/tour, I plan to begin my research experience in the Gallego Perez Nanomedicine Lab this coming spring.

#### Professor

The professor I met with was Dr. Rosemary Bartoszek-Loza, my General Chemistry 1210 professor. Dr. Loza was my professor of choice because I had previously exchanged meaningful emails with her before the beginning of the semester and I knew she would be more than willing to meet after additional interactions while attending office hours. I was drawn to interview Dr.

Loza for multiple reasons. First, Dr. Loza is a true college professor. She comes from the science industry, as she commonly reminds us. Dr. Loza teaches based on real-world applications of chemistry, not just basic fact memorization and regurgitation like many first-years are used to from high school. Dr. Loza's class has been a challenging adjustment because of this. Coming from two strong years of high school chemistry, the content of the class is not hard. However, adjusting to college learning, and figuring out how I personally learn efficiently is very challenging. So, of course, we discussed all of that and Dr. Loza acknowledged the challenge but continued to be very encouraging when saying it sounded like I was taking it on college the right way. Second, I had learned from the lecture that Dr. Loza was a runner. It just so happens that I am a runner too and am currently training for a half marathon. It was fun to be able to relate over some runner's talk. Lastly, and probably most importantly, Dr. Loza has a son who is currently an MD/Ph.D student who just so happens to also be named Andrew. Seeing how I also plan to go to MD/Ph.D school, Dr. Loza had some wonderful insight on her son's application process, academic path, and work as a graduate student. Overall, my meeting over Zoom with Dr. Loza was very relaxing and informal but beneficial. I think we both were excited to finally be able to connect and chat since we have not been seeing each other in the classroom due to the pandemic.

### Conclusion

In conclusion, I believe this interview assignment worked out very nicely and conveniently for me. I was able to incorporate connections I have made with students in my major, my search for a research lab, and an opportunity to get to know my professors all into one assignment. I believe that this was fundamental to a lot of my first-year connections and will continue to be the foundation of my network as I continue my career at The Ohio State University.

References

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