

Mentor Visit Assessment #2

Name of Mentor: Parmita Mishra

Profession: CEO of Precigenetics

Location: Slack & Virtual Meetings

Assessment

Building my mentorship with Ms. Mishra didn't mean just proceeding and interacting with her, for my case it included networking with key members of the Precigenetics team as well. This team consists of Mr. Max Dordevic the Chief Business Officer, Ahmed Nahas, and Albert the Chief Technical Officer. Each of these connections has given me the opportunity to interact with people who offer unique insights and help me build on my character in the biomedical field. I was integrated into the company's Slack Workspace which helps me observe discussions related to the company's progress, product development, and strategic decisions. This exposure gives me a real-world perspective on how biotech startups operate and make critical decisions. In this Mentor Assessment I want to focus on how these connections help me gain more experience and grow in my professional journey.

Work with Ahmed Nahas

One of the people Ms. Mishra is connected with is Ahmed Nahas. He is working on building a prototype for her company. A prototype of a medical device not only relates to how the outside of it is going to look but also how the insides are going to operate to make the device work. Building a prototype of a medical device significantly differs from building a prototype of an engineering device. There are certain standards set by the government that need to be followed to ensure the device works perfectly on the human body and aligns with how humans function.

My initial focus is to learn more about the standards and regulations for building medical devices and create a document that highlights these standards to ensure our design aligns with industry requirements. Beyond that, I plan to publish tutorials about using Fusion360 for medical device prototyping. This tutorial will cover both the exterior and interior components to assist any newcomers in biomedical engineering interested in creating a design, just as I was at the beginning of the year, to be able to pursue their interest.

As of now, Ahmed is discussing the final specifications of the device and will reach out to discuss the next steps and create a specific calendar.

Work with Max (Chief Business Officer)

With Max, I had more interest in the business side of biomedical engineering. Ms. Mishra advised me to not just study the engineering side of biomedical engineering but also the business side because that is

what she does for the company. I am also working on creating a pitch deck for Precigenetics, where I will discover how companies present their ideas to stakeholders and potential investors.

In doing this, I wish to understand how biomedical startups build themselves, how they communicate their messages, and how they pitch to investors or other companies to partner with them. By experiencing this with Max, I can gain essential skills for any individual wishing to innovate in the medical technology field.

Conversations with Albert (Chief Technology Officer)

My conversation with Albert was particularly informative, as we discussed career choices and life advice. He advised me that I could focus on the engineering aspect of biomedical technology in high school and the biology aspect in college—or vice versa. This piece of advice helped me better understand how to structure my education so that I can be the most skilled in the profession.

Additionally, Albert and I talked about the importance of attending weekly meetings and taking detailed notes in order to learn about the company's developments and challenges. Even though this is still pending because of the professionals' busy schedules, I consider it an excellent learning experience to learn about the behind-the-scenes of a biotech startup.

Takeaway and Next Steps

This project has consolidated my learning of the convergence of engineering, business, and research in the biomedical field. My near future intentions are:

- Finishing the medical device standards manual for regulatory guidelines in prototyping.
- Developing and publishing my Fusion360 tutorial to allow medical device prototyping for everyone.
- Collaborating with Max on the pitch deck to further enhance my business acumen in biotech.
- Attending and recording company meetings in order to know more about startup operations.

From this mentorship, I am not only refining my technical skills but also acquiring knowledge of how to deal with biotech entrepreneurship, strategic planning, and medical regulations—all knowledge that will come in handy when I pursue my future career.