

Khushi Borikar

Mr. Speice

Independent Study and Mentorship

14 December 2018

**Biomedical Analysis and Original Work Inspiration**

**Assessment 3 - Interview**

**Name of Professional:** Bryan Shaw

**Title:** Assistant Professor

**Company:** Baylor University, The Shaw Research Group

**Date of Interview:** 11/15/18

**Works Cited:**

Shaw, Bryan. "Biomedical Analysis and Original Work Inspiration ." 15 Nov. 2018.

**Assessment:**

The following interview was conducted with assistant Professor Bryan Shaw at the Shaw Research group to get a better understanding of bioanalytical chemistry and biomedical analysis as well as get further insight over environmental biochemistry. This information regarding biochemistry is different than my original work proposal over environmental biological chemistry; however, I wanted to explore the medical applications of biochemistry to further acknowledge how biochemistry plays a huge role in our health today. Likewise, this interview gave me the opportunity to speak to a professional who works both as a professor and supervises a research laboratory that analyzes protein misfolding and amyotrophic lateral sclerosis. As a

biochemist, multitasking is a key aspect of working efficiently to produce the best results. It was intriguing to see how Professor Shaw handled both occupations.

To begin the interview, I was curious as to what the Shaw Research group analyzed. Professor Shaw carefully explained how this research group engages in helping children and young adults who are visually impaired. More specifically, they generate models of proteins to help high school students learn about the dynamic structure of proteins. In addition, they develop tools to detect retinoblastoma in eyes. I was so intrigued by the wide range of approaches the Shaw Research group has done to help those who are visually impaired. This inspires me to focus on an aspect of biochemistry that helps my community directly as well. In addition, I wish to read one of their publications over retinoblastoma as this research aspect really intrigued me.

Afterwards, I hoped to also gather more information over environmental biological chemistry. By addressing different environmental disasters that used biochemistry processes to clean them up, Professor Shaw helped me look at the bigger picture and how I must create an original work that helps my community as a whole. For example, he addressed how detergents and other chemicals are partially responsible for the eutrophication of rivers and disturbance of aquatic organisms. After this interview, I researched more about different problems caused by chemical spills and assessed their severity. I plan on incorporating these in my original work as well.

Although this interview was over the phone, I was able to clearly hear Professor Shaw's passion for biochemistry through his careful explanations of biomedical applications and environmental disasters around the U.S. I was inspired by his passion and began to formulate my

original work around the idea of biochemical approaches to past and present environmental problems. I hope to follow a similar path as Professor Shaw in interest to biological chemistry.

After this interview, I am able to understand how a professor or teacher in biochemistry analyzes research and synthesizes it for their students. For future interviews, I am able to narrow my questions down to specific areas in biochemistry. Hopefully, I am able to also reach out to different types of biochemists to get an additional viewpoint over biochemistry. For future references, I also hope to build upon this interview and incorporate Professor Shaw's interview points into my original work.

11/15/18 Interview with Professor Bryan Shaw at Baylor.

The Shaw Research Group

help the visually impaired - How?

generate  
models for students  
to better understand  
protein structure

develop tools to  
detect  
retinoblastoma  
(research what this is?)

[Look at bigger picture]

- How pesticides affect environment?

Bioremediation Processes

↓  
chemical spills

↓  
disrupt animal life / eutrophication  
of rivers.

\* Detergents.

Improve original work?

- Map of environmental disasters