

Hayden Reece
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Interning at the Center for BrainHealth in Dallas, Texas, this summer was an extremely rewarding experience. The Center for BrainHealth is a research institute affiliated with The University of Texas at Dallas and is dedicated to the advancement of scientific knowledge in all areas of neuroscience. The researchers and staff understand that a healthy brain is a vital aspect of an individual's overall health and daily activities. During my time at the Center, I worked in the Neurocognitive Addiction Lab with Dr. Francesca Filbey, studying the long-term effects of marijuana use on the brain.

In Dr. Filbey's lab, I had a variety of responsibilities as I progressed through my eight-week internship. My responsibilities in the lab included data management and organization, phone-screening prospective study participants, preparing psychological tasks for studies, preliminary data analysis, presenting a psychological research paper, and reporting to the principle investigator on the status of my responsibilities and tasks. Additionally, I sat in on several research study sessions, including an fMRI brain scan and an EEG task, while taking notes on what the researchers were doing in every aspect of the job.

I began the internship by learning how participant data was organized, and the best way to manage and consolidate what is one of the largest collections of brain scan data of marijuana using populations in the country. I was then trained on phone-screening participants, which included marijuana-using and non-using populations for two different studies, each with separate criteria. Once a

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participant was accepted into the study I then used the lab's scheduling software to schedule the best time for the participant to complete the study sessions. I translated psychological tasks from Dutch to English in E-Prime, a psychological task modeling software for use in upcoming research studies. I also conducted a literature search to find the best way to score a psychological task and made use of statistical modeling software to discover the overall results of the task and the scores while creating a PowerPoint presentation to be presented to my supervisor and principle investigator. Finally, I presented a research paper that was written by Dr. Filbey in front of the lab and interns.

During this internship, I was able to immerse myself in all areas of how a psychological addiction lab is operated and the difficulties that are involved with doing such research. I learned that recruiting participants for research studies is difficult, even while using monetary incentives. Through phone screening participants, I was somewhat surprised to find that chronic marijuana users are open about their drug use history, and I developed communication skills to more effectively interact with a marijuana-using population, in which most individuals come from low socio-economic situations. I felt that I was really challenged when I took on the task of researching which way to best score one of the psychological tasks for the research study, and what ways may be best to present the data that I found. I was able to successfully communicate with my supervisor to find which way would fit best with the study as well as the pros and

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cons of using different methods of scoring the psychological task in question.

Using SPSS statistics, statistical modeling software, I was able to find significant results from the data subset that I was given to work with, and presented the results and discussed my own interpretations to the principle investigator of the study.

The experience I feel will most benefit me from this internship is the communication skills that I was given the opportunity to develop and hone while working in the Filbey Lab for eight weeks this summer. Several times during the internship, I was able to share my ideas on neuroscience and drug addiction, and have them heard by others who offered suggestions and directions for my research interests, as well as sharing some of their own. At the end of my time at the Center for BrainHealth, I was able to meet one-on-one with Dr. Filbey to consider my future career plans, goals, and research ideas. We also discussed at length some of the difficulties facing drug research and how such obstacles may be overcome in the future.

After my time in the lab this summer, I have decided that I wish to pursue a medical degree. While my internship was working with a researcher who obtained a Ph.D. in neuroscience, I believe that my passion is to be involved in the clinical side of research and contribute to medical research and treatments of neurological degeneration and disease. My hope is to develop a focus in medical marijuana research and to also research the effects of other drugs on brain

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disease and trauma. In the future I hope to use what I have learned from working in a cognitive addiction lab to conduct safe clinical research while helping to develop treatments for individuals who struggle with everyday problems stemming from brain injury, disease, and degeneration.