

As I think back on my past two years as a graduate student, I excelled far beyond my own expectations which were outlined in my original NSP application. I have found that opportunities come and go, and the aspects of fear and comfortability that I let guide me inhibited my success; nevertheless, I have chosen to divert from this path. Overall, the next two years will consist of me finishing my dissertation, securing a postdoctoral training position, gaining teaching experience, and continue to mentor students. My dissertation research focuses on understanding the cellular mechanisms that exogenous insulin-like growth factor-1 has proven beneficial in stroke outcome. Stroke research was novel to our laboratory prior to me designing this project which will ideally be funded by NIH within the coming weeks. Using a previously established inducible astrocytic knockout mouse model of the IGF-1 receptor and a newly established neuronal knockout model, I intend on deciphering whether neurons, astrocytes, or both are responsible for the neuroprotection seen in stroke mouse models following IGF-1 treatments. Following knockout, I will induce stroke via photothrombosis and subsequently assess immediate tissue damage in a cohort, behavioral deficits in a long-term cohort, and cellular and molecular changes that accompany stroke. I expect to complete these studies within the year and received my doctoral degree by December 2022.

During these years, I will also be participating in the Summer Program in Neuroscience, Excellence, and Success (SPINES) which will provide a unique opportunity to communicate my science, enrich my grant/manuscript writing skills, hone my quantitative skills, but most of all develop my network which could lead to a post-doctoral position. Furthermore, I will be applying to the Outstanding Scholars in Neuroscience Award Program (OSNAP) which will aid in networking with NIH employees and independent investigators. I will also be applying for the Stanford Postdoctoral Recruitment Initiative in Sciences and Medicine (PRISM) program to interview with scientists from laboratories in which I am interested in becoming a member. In addition, in 2021, I published 3 first-author manuscripts with another under review; thus, my goal for 2022 prior to completing graduate school is to publish 3-5 first author manuscripts. A key component of my two-year plan is to join a laboratory with a R01 in which I will apply for a NIH diversity supplement to fund the beginning of my training to obtain preliminary data for the development my own MOSAIC K99/R00 application. Outside of my scientific research, I will continue to mentor URMs around the country, teach lectures at my graduate institution, and secure a position as an adjunct professor. Overall my two-year plan consists of seeking opportunities to enhance my network to become a post-doctoral trainee at a leading neuroscience institution, receive my own line of funding through a diversity supplement which will be used to collect data for my MOSAIC K99/R00 application. The described plan is to designed to create opportunities for post-graduate school training and strengthening key facets of becoming a successful independent investigator.

Being a NSP associate dramatically changed my graduate training experience and career trajectory. As a first-generation college graduate, I will soon be the first person in my family to obtain a doctoral degree. My post-graduate school goals consist of further developing my scientific research repertoire through post-doctoral training focused on neurodegeneration and associated diseases. Moreover, I hope to enrich my teaching, mentoring, and trainability to ultimately secure a tenure-tracked faculty position. As a post-doctoral trainee, my foremost goal is to receive an independent line of funding specifically the MOSAIC K99/R00 award which exponentially increases the success of my first years in an assistant professorship. All too often, professors entering academia have not been adequately trained in the “art of teaching,” and I hope to go against the grain to perfect my teaching ability by being an adjunct professor during my post-doctoral training. After an independent investigator, I intend on volunteering to mentor minority serving groups and programs designed to increase underrepresented minorities (URMs) success in STEM such as, NSP along with recruiting summer undergraduate minorities through REU programs to gain research experience. Furthermore, one of my greatest professional aspirations is to lead a T32 application at an institution to recruit URMs providing opportunities to gain a different aspect of graduate training such as budgeting, scientific writing for manuscripts and grants, crafting personal statements, managing people, and navigating science whether that be academia or industry.

Of the opportunities I received as a NSP associate, the most intriguing was the NSP 2021 conference where I established a relationship with Michelle Jones-London, Ph.D. which substantially led to relationships with others in the NIH network such as, Marguerite Matthews, Ph.D. Moreover, I believe the most fruitful opportunity was the grant writing coaching that I received all throughout the Fall of 2022 with Victoria Luine, Ph.D. During my first week as a NSP Associate, I was able to connect with Alberto Cruz-Martin, Ph.D. who offered mentoring through the Neuroonline community. Two years later and Dr. Cruz-Martin continues to play an active role in my mentorship by being a member of my dissertation committee and even instrumental in crafting my NIH F31 application which is expected to be funded (impact factor 29, 13<sup>th</sup> percentile). Without NSP, I would not have gained these tremendous experiences and mentors that altered my career trajectory. My opportunities from NSP also led me to be chosen to participate in Summer Program in Neuroscience, Excellence, and Success (SPINES) in 2021, but due to familial issues, I chose to defer to participate in this upcoming summer. The previous experiences are concrete evidence of my ability to take advantage of the opportunities that were offered by NSP to me as an associate. As a fellow, NSP will be a critical tool and support system in my professional development to achieve my professional and scientific goals for the last year of graduate school and my first-year as a post-doctoral trainee.