My career goal is to lead my own research team to address critical problems in biomedicine and society, either in an academic or industrial setting. I am quite interested in dissecting the neural circuitry that controls behavior in simple model organisms and applying that knowledge to understand how neurodegenerative diseases affect neural circuitry. Having being exposed to research involving cell signaling and neural circuitry throughout my undergraduate career, I understand how even modest disruptions of normal regulation cause profound deleterious effects. One of my major current interests is to study how the accumulation of misfolded proteins plays a role in neurodegenerative disorders, such as Parkinson's and Alzheimer's Diseases. I would like to investigate how the aggregation of amyloid peptides in the brain leads to the development of Alzheimer's disease. I am currently making strides towards this goal by pursuing this scientific research in a rigorous graduate program in Biochemistry, Biophysics, and Structural Biology at Yale University. One of my reasons for selecting this program for my graduate school career is the opportunity to conduct research in diverse fields ranging from neurobiology to protein folding and design. Furthermore, the Yale research facilities such as the Center for Cellular and Molecular Imaging and the Small Molecule Discovery Center are integral to the research areas I am interested in. However, my deciding factor in selecting this program was the approachability of faculty members and the eagerness they are in discussing their work.

I have also been accepted to the selective Medical Research Scholars Program at Yale where I am receiving an unparalleled background in biomedicine by taking courses applicable to clinical medicine such as Molecular Mechanisms of Human Disease, Physiological Systems, and Systems Cell Biology. The rigorous background afforded by these courses is already helping me to understand at several levels of organization of how neurodegenerative diseases affect an individual from the cellular degradation in the brain to the loss of motor ability as a consequence. Furthermore, I am also receiving a strong foundation in human physiology, histophysiology, and drug design which can help me visualize how drugs target different parts of the body and their limitations. Through the mentored clinical experience I will get a deeper understanding of how disease such as Alzheimer's and Parkinson's manifest within the patient and the limitations of the current therapies in treating these several diseases.

In terms of my career-related activities, I am taking advantage of the scientific opportunities Yale has to offer. My exposure to the Biosciences club at York College made me appreciate the critical role mentoring and exposure to career options plays in the development of young scientists. Having had a very involved research mentor at York College, I was able to see the importance of networking and communicating your research in a precise and understandable manner. Therefore, I have joined the Yale Student Science Diplomats, to share my scientific knowledge with my peers and learn about their experiences and expertise, which will help me learn how to become a better scientists Our goal as a Science Diplomats team will be to develop presentations for the lay public to help create a scientifically informed community through public lecture series and writing working groups. I also plan to join the editorial staff of the Yale Journal of Biology and Medicine. This experience will help improve my scientific writing skills through the reviewing and editing of articles.

I feel very strongly that the opportunities this program has to offer in combination with my passion for science, has launched me on my way to become a better scientist. Whether I end up as an academic faculty at a respected institution or a project manager at a biotechnology company, I am certain that this path I have taken is the right one. I am very pleased with how my career is science has been shaping up and very excited by the scientific opportunities that lie ahead.