Born in Oakland, California, and shaped by my experiences living in San Francisco for seven years, I have always been motivated by the need to address public health challenges within diverse communities. Now residing in Miami, Florida, as I pursue my Ph.D. at Florida International University, I remain deeply committed to advancing public health through research, particularly within aging and underrepresented populations. These diverse environments have shaped my perspective, driving my dedication to promoting inclusivity and diversity in scientific research, particularly in the field of aging. The National Institutes of Health (NIH) recognizes that a diverse pool of scientists is essential to maintaining the nation’s leadership in scientific discovery. Diverse teams bring innovative ideas and distinct perspectives, enhancing the quality of research and ensuring that the benefits of scientific advancements reach all segments of society. I am deeply committed to contributing to this mission, particularly as it relates to addressing the health challenges faced by aging and underserved populations.

My doctoral research focuses on understanding the environmental determinants of cognitive decline, with a particular emphasis on neurotoxic metal exposure and its impact on aging populations. My work is particularly relevant to NIH’s mission to promote health in aging populations, and my publication currently under review, "Metabolomic and Lipidomic Analysis of Manganese-Associated Parkinsonism: a Case-Control Study in Brescia, Italy," exemplifies this focus (BioArxive Citation). This study investigates the metabolomic and lipidomic changes associated with manganese (Mn) exposure, identifying potential biomarkers that can be used to detect and intervene in neurodegenerative processes early, particularly in vulnerable populations. The results of this research have significant implications for public health, particularly in identifying early biomarkers of neurotoxicity in aging populations, which could lead to improved interventions and health outcomes. My research aligns with the NIA’s Strategic Directions for Research on Aging, contributing to our understanding of the biological processes underlying aging and the environmental factors that exacerbate age-related diseases.

My long-term career goal is to become a leading researcher in environmental health and aging, focusing on reducing health disparities among underrepresented populations. I envision a career that integrates rigorous scientific research with public health advocacy, aiming to translate my findings into policies and interventions that can make a tangible difference in the lives of aging individuals, particularly those from marginalized communities. After completing my Ph.D., I plan to pursue a postdoctoral fellowship to further hone my expertise in aging research and environmental health. My goal is to secure a faculty position at a research-intensive university, where I will lead interdisciplinary research initiatives that explore the relationships between environmental exposures, aging, and health disparities. By uncovering the biological mechanisms through which environmental factors contribute to cognitive decline, I hope to develop targeted interventions that reduce these effects and improve health outcomes for diverse aging populations.

The NIH R36 Aging Research Dissertation Award is a critical opportunity for me to contribute to the diversity of the biomedical and behavioral sciences. As an African American male in a field where individuals from my background are significantly underrepresented, I bring a unique perspective and commitment to addressing the health disparities that affect aging populations. My research aligns with the NIH’s mission to promote diversity in the scientific workforce and to advance health research that benefits all segments of society, particularly those who are often underserved. I am particularly drawn to the NIH’s focus on understanding the heterogeneity of aging and the factors that contribute to health disparities among older adults. My research not only addresses these issues but also contributes to the broader goal of enhancing public trust and ensuring that health research benefits diverse populations. The R36 award will enable me to continue my research at this critical juncture in my doctoral training, providing the support I need to complete my dissertation and pursue a career dedicated to improving health outcomes for aging populations through evidence-based interventions. By aligning my research and career goals with the objectives of the NIH and the NIA, I am eager to contribute to the advancement of aging research and to help diversify the pool of scientists working in this crucial field. As a recipient of this award, I am committed to advancing my research capabilities, contributing to the academic community’s understanding of aging, and working towards reducing health disparities in aging populations.