At an early age, during one of the Christmas holidays in my village in the southeastern part of Nigeria, I witnessed my cousin suffer a serious side reaction that resulted in a swollen face and rashes after my grandmother had given him herbal medication the previous night. The experience was etched in my memory and left me curious as to what could have gone wrong.

and with the motive of not allowing such an experience to occur again motivated me to study pure and industrial chemistry during my undergraduate years and streamlining it to organic chemistry during my masters. During my master’s program in 2020, I came across a report by Prof Usman Aliyu, the Director General of Nigeria National Institute for Cancer Research and Treatment that 78,000 estimated deaths occurred across the country due to cancer-related complications yearly.

The worrisome report alongside my childhood curiosity about drug discovery and delivery metamorphosed into an interest in cancer drug discovery and development during my master’s program. while it was impossible for me to pursue a master’s/doctoral program in cancer-related research in my country at the time I quickly seized the opportunity to deepen my knowledge of organic synthesis since it would be crucial in the discovery of drugs. During my master’s program in organic chemistry, I gained excellent research skills and knowledge, especially in organic synthesis and the knowledge and skills acquired would be a great asset to the field of drug discovery as they would aid in the design and synthesis of novel drugs as well as modification where necessary for the existing ones.

My research experience, skills, and knowledge include but are not limited to the *“synthesis of two (2) structurally related Schiff bases* and *their metal (zinc and chromium) complexes”* and *“novel synthesis of iron oxide @mesoporous silica core-shell nanostructures”.* The former had the Schiff bases synthesized from the reaction between 2-aminopyridine and 4-ethoxybenzaldehyde and the reaction of 4-ethoxyaniline and 2-pyridinecarboxaldehyde using the reflux method in ethanol for 2 hours producing 88.2% and 83.5% yield respectively*”*. The Schiff bases and their metal complexes were subjected to antimicrobial studies and only the chromium complex of 4-ethoxyaniline-2-pyridinecarboxaldehyde showed antifungal activity against saccharomyces cerevisiae. Whereas in the latter, the synthesized nanoparticle was evaluated for its toxicological profile on Wistar albino rats, and the histopathological alteration of the rat’s kidney revealed that the control group had normal kidney tissue, 0.5% w/v treated rat showed normal kidney while 1% w/v treated rats showed severeinflammation and oedema of the kidney tissue. When nanoparticles are applied in large amounts, they cause acute toxicity even death (Selvarajan et al., 2020).

In a bid to expand my research skills, I also took part in a research work titled the *“Comparative study on the phytochemical screening and chemical composition of chrysophylum albidum and amacardum occidentale leaves cultivated in south-western Nigeria”*. The research findings revealed that the leaves of *chrsophyllum albidum and Anarcardium* occidentale are potentially good sources of carbohydrates and protein, as well as being high in minerals like Ca, Na, and Mg. The leaves further showed high values of phytochemicals, making their consumption extremely beneficial to one’s health. The work was published in 2022 in the “International Journal of Science and Technoledge”*, Vol 10, doi: 10.24940/theijst/2022/v10/i10/ST2210-005*. My master’s research work titled *“Steroid content analysis of Port Harcourt poultry chicken meat and feeds”* also added to my plethora of research knowledge and skills.

It has always been my desire to explore the field of drug discovery and delivery and a PhD in organic chemistry at New Mexico State University with a research interest in cancer drug discovery would be a steppingstone toward achieving my all-time aspiration of being a professor of synthetic organic chemistry and a consultant in the field of medicinal chemistry. Hence, it is my interest to commit my doctoral research to exploring the sustainable discovery of cancer drugs and the design of novel biological probes and I believe that my academic background and previous research experiences will set me up for grand success in this research.

My choice of a Ph.D. program at New Mexico State University stems from the opportunity to carry out cutting-edge research on cancer drug discovery with renowned faculty members and fellow graduate students. I have identified a faculty member in the program with whom my research interests strongly align- **Prof Jeffrey B. Arterburn.** My short-term objectives within the next two (2) years are to deepen my knowledge and expertise in drug discovery and the study of biological pathways by conducting research and experiments, publishing research findings in reputable scientific journals, and presenting them at conferences to contribute to the field’s knowledge base.

In addition to my research skills, I also possess great teaching skills and experience. Most recently during my master’s program, I was assigned to lecture 300-level students on organic reaction mechanisms and spectroscopic methods. A task I handled well. During the ultimate year of my undergraduate studies, I was appointed the academic coordinator of the department and was tasked with the responsibility of organizing extramural classes where I tutored students across all levels of the department. In addition, During COVID-19 I founded an online teaching group whose service helped not less than 400 undergraduates, and after COVID-19 we launched our onsite class that also helped a lot of students overcome their academic fears. The accumulated teaching skills and scientific knowledge of chemistry have made it possible for me to write and publish a series of undergraduate guides (textbook) in organic chemistry and biochemistry which has helped many undergraduate students better understand chemistry and biochemistry.

I am confident that I will meet the high standards set by your university considering my excellent academic background (B.Sc. pure and industrial chemistry, GPA 4.16/5.00, and M.Sc. organic chemistry, GPA 4.26/5.00), research experience, teachability, and humility to learn and conduct research.