Statement of research interests and goals for graduate admission



ment of Research Interests and Goals for Graduate Admission With the continued increase in the world demands formedical advancement. I took a journey to build on my knowledge base. Therefore, I embarked on a journey to becoming a professor of biology. As I grew up, I had several encounters with friends and family who had difficulty in conceiving or bearing children naturally. These contacts led to a keen interest in the reproductive nature of organisms as I sought to understand the sexual nature of organisms. This has become an integral part in my quest for education both as a scientist and an educationist. In addition, I plan to conduct a piece of research on sex determination mechanisms and sex chromosome evolution in squamates. The program I intend to apply for is focused on Biology and Evolutionary. I had not always been a research fanatic or had any ambition of achieving a Ph. D. However, I felt inspired after attending a research conference. The main topic of discussion was centered on the development of the HPV vaccine. This profoundly motivated me and later turned into a crime of passion, for being able to contribute actively to the great wealth that is in scientific knowledge. With the thirst to contribute to the richness, I sought the guidance of a professor who now is my colleague in research Dr. Melissa Wilson Sayres. She is a doctor in the Biodesign institute working in the school of life science. She has, to a great extent assisted in developing in me, the required set of skills and knowledge that is necessary for my success. She has played a key role shaping me to who I am to this present day In my study, I intend to carry out in-depth research on Squamate sex determination, and sex chromosome evolution. The sex chromosomes of mammals, birds, worms, and flies lead to some unusual expectations for general sex chromosome evolution. Several genes appear to be conserved in

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the sex determination pathway in mammals (Bainbridge, 2003). The particular sex-determining loci in many other vertebrates are unknown. The first objective of this project is to analyze patterns of evolution of genes involved in the sex-determining pathway in mammals (and birds). In addition, I also intend to carry out a comparative study of rates of evolution in the gene SEMG2, known to be involved in semen coagulation. They showed a high positive correlation between rates of molecular evolution and the level of sperm competition in the species. However, this study will be limited to primates only, and it is unknown whether SEMG2 shows a correlation between sperm competition outside of primates. Further, such a comparative study between rates of evolution and levels of sperm competition (both within primates and across mammals) might provide a set of candidate fertility genes.

With the strengths gained from previous research, conviction, and knowledge, I seek an opportunity to share with the scientific fraternity. I also have a continued willpower, love and dedication to assisting in the unification of the world of science. The institutions microbiology programs highly excites me, and I would like to be part of the institutions success story. I have a conviction that this is the next line in my career, and I hope you will grant me the opportunity. With this in mind, I would like to submit my humble Statement of Research Interests. In addition to my strong qualities, I seek to point out my commitment to achievement. This has been my personal drive in nearly all my endeavors. I have endeared to completing all projects I start.

References

Bainbridge, D. (2003). The X in sex. Cambridge, Mass.: Harvard University Press.