

ASTDA Small Project Assistance to Attend the STAMPS Workshop and the IDSOG Conference

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Dates: July 20 – August 7, 2022

As an MD/PhD candidate at LSUHSC in New Orleans, my overarching career goal is to become a physician-scientist trained in the understanding, management, and treatment of sexually transmitted infections (STIs). I was able to progress towards this goal by enhancing my bioinformatics skills through analyzing microbial populations within the vaginal tract as well as making connections to further my training in experimental biology. With the support of ASTDA, I participated in the Strategies and Techniques for Analyzing Microbial Population Structures (STAMPS) workshop at the Marine Biological Laboratory (MBL) in Woods Hole, MA, as well as the 2022 Infectious Diseases Society for Obstetrics and Gynecology (IDSOG) in Boston, MA.

Currently, my research project is focused on the etiology and development of bacterial vaginosis (BV) in healthy women. BV is associated with several co-morbidities including preterm birth and increased acquisition of STIs. This infection is most prevalent in African American women who have sex with women, and this is the population I have been devoting my time to investigating with the goal of improving their health outcomes. Particularly, I am interested in novel ways to model the changes in the vaginal microbiome over time, identifying BV-associated bacteria and providing a better understanding of their contribution to the vaginal environment leading to BV. Improved knowledge of the pathogenesis of BV will improve health outcomes by informing novel diagnosis, treatment, and prevention mechanisms.

The STAMPS course provided an outlet to receive instruction on novel analysis tools from leaders in the field and to explore the nuances of my data in a collaborative environment along with several research trainees from around the world. Following this workshop, I presented a poster at the IDSOG conference which demonstrated the progress of my research.

Overall, the instruction and networking I will receive through the STAMPS course and IDSOG conference will strongly promote my success in not only my current project but also my future career as a physician-scientist. These skills will be synthesized with my clinical skills and the practice of medicine to develop novel approaches that will facilitate the understanding and treatment of various STIs. In addition, my future accomplishments from the collaborations and knowledge I have gained through STAMPS and IDSOG will be a direct result of this ASTDA project