Epidemiology student excels in Genomics and Bioinformatics Certificate program

Fadi Musfee, MD, MPH, a doctoral student at UTHealth School of Public Health, is a member of the inaugural class of students enrolled in the Genomics and Bioinformatics Certificate program. Musfee is one of many students who has elected to enhance his education with one of several available graduate certificates at the School of Public Health.

The Genomics and Bioinformatics Certificate is intended for professionals in academic, clinical, and research settings who are now or soon to be faced with complex genomic and multi-omic data. Students enrolled in the program will be equipped with a unique set of skills needed to compete and lead in genomic sciences. These skills, obtained through a structured set of courses, will assist students in understanding the advances in human genomics and bioinformatics so that they may apply this knowledge to improve public health and prevent disease.

“This certificate prepares students to deal with daily issues that may arise while working with genetic data and helps students learn the basic sciences behind medical and statistical genetics. To my colleagues who are pursuing a career in genetic epidemiology, I would highly recommend taking this certificate as part of their study course,” says Musfee.

Over the past few months, Musfee has taken a Practical Computational Genetics and Bioinformatics course where he created a project to map single nucleotide polymorphisms (SNPs) to genes using Python coding. While enrolled in his Genetic Epidemiology course, he gave a poster presentation at the Human and Molecular Genetics Symposium at MD Anderson Cancer Center on his research findings on the treatment of HIV patients using CRISPR9 editing.

“I have a solid background in biology and human diseases and I felt that genetic epidemiology is the science that links my biological background to the public health field,” says Musfee.
After completing the certificate program, Musfee plans to “use the knowledge and experiences I received during the Genomic and Bioinformatics Certificate program to develop a project that analyzes genetic data for patients diagnosed with thoracic aortic aneurysms and aortic dissections. The data for this project was collected by Dianna M. Milewicz’s, MD, PhD research team at McGovern Medical School. With the help of my advisor, Laura Mitchell, PhD, I will create a proposal to analyze this dataset,” says Musfee.

The Genomics and Bioinformatics Certificate can be completed in 12 months if the required courses are taken in three consecutive semesters. Online classes are available. For more information, please contact JR Bright, academic and admissions advisor, at JR.F.Bright@uth.tmc.edu.