

Monique Ferguson

Job title: Director of HIV Pathogenesis Laboratory

Can you tell us a little bit about your job?

I am a molecular virologist and member of the University of Texas Medical Branch Committee for Diversity in Graduate Education, which is dedicated to recruiting underrepresented minority students into their graduate school program. I serve as the faculty advisor on the HIV/AIDS Awareness Panel (HAAP) and help to coordinate programs that increase awareness of health disparities experienced by underserved minorities living with HIV/AIDS. In addition, I serve as a mentor to students on all academic grade levels.



How did you start on your path to a career in STEM and what did that path look like?

I attended Texas A&M University on a four-year academic scholarship. While there, I received the Outstanding Student Award and the Robert A. Welch Research Fellowship. I began my career in science and medicine while a student at Texas A&M University where I worked as a research laboratory assistant in a biochemistry and biophysics laboratory.

Then I entered the Graduate School of Biomedical Sciences at the University of Texas Medical Branch (UTMB) in Galveston and received my Ph.D. in microbiology and immunology. I collaborated in the structure-based design of antiviral agents directed against cell attachment and replication of alphaviruses, flaviviruses, and arenaviruses.

Currently, I am an assistant professor at UTMB in the division of infectious diseases in the Department of Internal Medicine. I was awarded an R21 research grant from the National Institutes of Health (NIH) that focuses on HIV drug development. My primary responsibility is to execute an NIH-funded project on structure-based drug design that targets the HIV envelope.

What would you say to young folks who are thinking about a career in STEM?

STEM provides a pathway to a wealth of career opportunities in biotechnology, engineering, biomedical research, as well as many other STEM-related careers. For me, the most exciting part of having a STEM career in biomedical research is the opportunity to make novel discoveries that will positively impact the lives of individuals with life-threatening diseases. A career in STEM allows you to further explore your intellectual curiosities which may lead to new scientific discoveries that will impact the world.