

Former NIEHS STEP student encourages others to dream big

By Robin Arnette

Brian Rogers was happy with his job loading bags at Raleigh-Durham International Airport. While it didn't pay a lot of money, it covered his bills and gave him a chance to figure out what he wanted to do with his life. After seven months of constant lifting, Rogers developed a hernia that forced him to think about a new occupation.

For the next 10 years, Rogers focused on education and his interest in research and medicine. In May 2013, he graduated with an M.D. from Howard University College of Medicine, and this fall will begin a residency in anesthesiology at Duke University Medical Center. As he's done every year since entering medical school, he's at NIEHS doing research for the summer (see [text box](#)).

Rogers' career path took a wonderfully circuitous route, and he wants to inspire others to believe in themselves, too.

Following opportunities

Before his stint at the airport, Rogers, a Durham, N.C., native, majored in business at the University of Utah in Salt Lake City, but dropped out. He didn't take his studies seriously then, but when his medical condition arose, he realized going back to school was his best option.

He applied to North Carolina Central University (NCCU) in Durham, and the school offered him a conditional acceptance. Rogers chose biology as his major and by the end of his first semester ranked at the top of his classes. Impressed with his work, the chairman of the biology department told him about an exciting program.

"NCCU had a co-op program where I worked 20 hours a week at the U.S. Environmental Protection Agency, and the rest of the time I went to school," Rogers said. "It covered tuition and paid me a stipend, which was more than I'd make in a year at the airport."

Rogers completed his bachelor's degree in 2006 with honors, but since he didn't land any positions in his new field, he began a master's degree in biology, specializing in bioinformatics at NCCU. While he enjoyed working with computers, a year later he felt the urge to volunteer a few days a week in a biomedical research lab.

He emailed several scientists at NIEHS and Kenneth Olden, Ph.D., Institute director at the time, wrote him back. Olden also did research and quickly accepted him into the Short-Term Education Program (STEP). Rogers split his time between his master's thesis at NCCU and research at NIEHS.

Realizing his potential

Rogers finished his master's degree in 2009, and was ready to devote all of his time to NIEHS research, but, during his STEP evaluation, Olden did something Rogers didn't expect. He commended Rogers for his exceptional work, but said that he couldn't, in good conscience, hire him because he could do so much more.

Olden believed then, and now, he made the right decision. "I am very proud of Brian and his accomplishments," Olden said, "because he was willing to do the hard work and make the many sacrifices necessary to become a physician with a strong background in research."

Interestingly, Olden is married to Sandra White, Ph.D., a professor and Rogers' academic advisor at NCCU. White fondly recalled Rogers' analytical thinking skills and the complexity of his master's thesis, and said, "What I most admire about Brian is his humanity and humbleness."

The importance of mentoring

When Rogers decided he wanted to go to medical school, he contacted NIEHS Scientific Director Darryl Zeldin, M.D., to find out more about the application process. Zeldin became another one of Rogers' mentors, and not only helped him put together an outstanding application, but also prepared him for the rigors of medical school once he got in.

Rogers said, since he's benefited so much from mentoring over the years, he wants to see more mentoring programs that encourage young people to aim high.

"I believe I've gotten this opportunity, so that I can help others," Rogers said. "How many other people are out there just like



Rogers said his long-term goal is to work at an academic medical center, so he can mentor students. (Photo courtesy of Steve McCaw)

me?"

NIEHS sharpens Rogers' research skills

During his time as a STEP student in Olden's group, Rogers examined arachidonic acid signaling in cell adhesion and migration. Once he became a medical student, Rogers came back, between his first and second years, to study the genes involved in the development and progression of liver cancer with Mark Hoenerhoff, D.V.M., Ph.D., of the NIEHS Laboratory of Cellular and Molecular Pathology.

Between his second and third years, he worked with NIEHS Clinical Research Unit (CRU) Medical Director and Acting Clinical Director Stavros Garantziotis, M.D., characterizing gene expression changes in human white blood cells exposed to nanoparticles.

Now that he's completed his fourth year of medical school, Rogers is heavily involved in clinical trials taking place at the CRU. He's doing data analysis and patient recruitment, while also performing physicals and taking histories of clinical trial participants. He said he likes coming back to NIEHS, because his belief of becoming a physician began here.

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