## Address to Undergraduate Research and Creative Achievement Day April 23, 2008 Chiatogu Onyewu, M.D., Ph.D.

Thank you for inviting me to return to UMBC for Research Day. I'm excited as I look around and see so many inspired faces.

I was asked to comment on how I feel research has impacted my career path. As I was preparing my comments, the old adage came to mine, "It takes a village to raise a child . . ." Some of you might think this is a bit of stretch, but the same is really true about "raising" a researcher. Research, whether it's in the basic sciences or the social sciences, intrinsically entails responsibility to others, and is completely reliant on community involvement and some form of mentorship.

These principles came to life for me three years ago when I participated in the Howard Hughessponsored program Building Opportunities and Overtures in Science and Technology (BOOST). This program matched minority and female sixth-graders with area graduate students who would help them to develop a science project. This particular age group was targeted because statistics have suggested that sixth-grade is the point at which minority and female students lose interest in the sciences.

I was matched with three girls who each developed very different science projects capitalizing on their personalities and talents. I had to learn how to relate to each of the girls while trying to enforce the unpopular rules of the scientific method. It was during this time that I truly saw how conducting research had changed my life. I was reminded of my first basic science research experience and how the initial mentorship I received as an undergraduate shaped my attitude towards science. At that time, I worked with Dr. James Rogers, an African American microbiologist who was a postdoctoral fellow in the department of Microbiology and Immunology at the Uniformed Services University of Health Sciences in Bethesda, Maryland. Dr. Rogers repeatedly challenged me to ask questions and encouraged me to independently design experiments that would provide answers. His mentorship sparked in me an enthusiasm for science and inspired me to continuously demand excellence of myself.

Now, as a graduate student serving as a BOOST science coach, I had the opportunity to lead by example, following the models of mentorship that I had previously received. My fellow BOOST mentors and I were the "village," uplifting these young people, just as someone had previously encouraged us along our current paths. This is what mentorship in the research field can do.

In every type of research, you become grounded in others (and by others), and yet you are able to make your own single mark through your quest for something novel. In essence, you are able to shine bright among many stars. Pursuing a career in research teaches you how to see far enough to reach for the sky, but only by "standing on the shoulders of Giants," (appropriately, a phrase made famous by Isaac Newton). With my BOOST girls, I had the opportunity to stoop down and lend my shoulders. Suddenly, I became their "Giant."

Now I could proceed to list some accomplishments and accolades I received in graduate school that might convince you that I deserve the title of "Giant." But no award could measure up to the pride and validation I felt when one of my girls won the Regional Science Fair that spring.

Next time you pick up a pipette, conduct a site interview, read a book for your thesis work, or complete the simplest of experiments, strive for excellence. Be encouraged that you are participating in a long line of stretched shoulders, and that your hard work will prepare you too to be a Giant, with sturdy shoulders that someone else in this room (myself included) may have to stand on one day.

Thank you.