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Excellence Comes in Many Colors



Image Title: HHMI investigator Michael Summers works with UMBC undergraduates Leila Njimoluh and Adjoa Smalls-Mantey in the lab. - Paul Fetters

Hughes Scholars at the University of Maryland, Baltimore County are already making a name for themselves. So is their university, by identifying, supporting, and encouraging outstanding students from diverse backgrounds.

The first Hughes Scholars supported by an undergraduate science education grant from HHMI graduated from UMBC in 2005, and all three students have gone on to Ph.D. or M.D./Ph.D. programs at Stanford University, The Johns Hopkins University, and Case Western Reserve University. Five additional students are about to graduate, and all have been accepted into a Ph.D., M.D.-Ph.D. or M.D. program at Baylor College of Medicine, the University of Florida, University of Maryland, University of Michigan, and Cornell University.

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- Michael F. Summers

"They're not just getting into graduate programs; they're getting into the very best programs," said Michael Summers, an HHMI investigator and director of the Hughes Scholar Program at UMBC.

A summer "bridge" component of the HHMI program helps prepare a hand-picked group of incoming freshmen with high potential—many of them minorities underrepresented in the sciences—for the rigors of college science. Then intensive mentoring and opportunities to conduct research turn their undergraduate years into stepping stones to leadership positions in biomedical science.

"So far, the program has exceeded our expectations," said Summers, a professor of chemistry and biochemistry at UMBC. A new \$2.2 million HHMI grant will enable the university to support seven students each year through its Hughes Scholars Program, rather than five, as it is currently doing.

Hughes Scholars are selected as incoming freshmen, and an HHMI grant provides funds for summer research and travel to scientific meetings. The grant also covers tuition and room and board for their first two years of college. UMBC picks up the tab for the students' junior and senior years through a federal grant.

Before classes start, Hughes Scholars attend a summer program to familiarize themselves with the campus and the research being done at UMBC. They rotate through several labs during their freshman year, eventually choosing a "home" laboratory in which they will do long-term research. The summer before their sophomore year, they start working in that lab.

Scholars also complete at least one summer of research with an HHMI investigator elsewhere in the country, usually before their junior year. Each scholar also has the option of spending his or her junior year as an exchange student in the lab of another HHMI investigator.

To help motivate the next generation of science majors, Hughes Scholars also serve as tutors and mentors to local elementary and high school students. Many also tutor fellow UMBC undergraduates in chemistry, biology, or physics.

The program is gaining momentum. In 2002, the first year of UMBC's first HHMI undergraduate grant, Summers received seven applications for five Hughes Scholar positions. By 2005, there were 24 applications.

Of 25 Hughes Scholars so far, 23 are African American. And while many Hughes Scholars are from Maryland, students are also flocking to the program from as far away as California, Florida, and North and South Carolina.