

# UMB Creates New Program to Steer Children Into Health Careers, with NCI Grant

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The University of Maryland, Baltimore (UMB) is now strengthening the pipeline that leads Baltimore's children into well-paying, rewarding careers in cancer-related health care and research, with a new \$750,000 grant for two years from the [National Cancer Institute](#) (NCI), part of the [National Institutes of Health](#) (NIH).

The funding supports the creation of the UMB CURE Scholars Program, a partnership between the University of Maryland, Baltimore and the [University of Maryland Marlene and Stewart Greenebaum Cancer Center](#). The CURE or Continuing Umbrella of Research Experiences program is a diversity-training model developed by NCI's [Center to Reduce Cancer Health Disparities](#).

The [Continuing Umbrella of Research Experiences](#) (CURE) is NCI's long-standing, highly successful program employed to increase the number of competitive cancer researchers from underrepresented populations. It provides a continuum of support and professional guidance to students and trainees from high school to their first academic appointment. The program is now primed to address even earlier intervention strategies to prepare a pool of students to enter the CURE pipeline.

Diversity in biomedical research and health care is a growing issue in America. In 1980, 557 black men entered American medical schools, versus just 470 in 2012, according to the [Association of American Medical Colleges](#).

"UMB CURE is a particularly exciting program in that it addresses significant disparities in health and in the work force," says **Jay A. Perman, M.D.**, president of the University of Maryland, Baltimore and a co-investigator on the UMB CURE project. "At UMB, we have a commitment to our part of Baltimore City, to making it stronger and healthier through innovative programs such as this one. We're excited to see what kind of smart, talented researchers and clinicians result from UMB CURE, and how they will change the field of cancer research and care."

"UMB is uniquely suited for success within the CURE model for a variety of reasons," says **Sanya A. Springfield, PhD**, director of NCI's Center to Reduce Cancer Health Disparities.

"This new pilot program takes advantage of UMB's strong affiliations with historically black colleges and universities, and minority-focused programs, its surrounding community, and strong institutional leadership from Drs. Perman and Cullen. The UMB pilot program will identify students from West Baltimore who are interested in science, health care or STEM career paths," says Springfield. "NCI believes that UMB's new pilot approach of attracting and engaging talented inner city youth in the sciences earlier - in middle school or even before -- and employing a holistic, hands-on intervention that includes the children, teachers, parents, community, and NCI to connect the students with researchers currently working in cancer will ultimately serve as a model for other programs with the same mission."

West Baltimore struggles socioeconomically even in comparison to the rest of Baltimore. The neighborhood's average per-household income in 2011 was just \$27,302, compared to \$38,721 for households in the city overall. At the same time, rates of cancer among African Americans in Baltimore City are high.

"I am pleased that we were able to secure federal funds for the UMB CURE Scholars Program. This is the kind of smart leveraging of resources that will create worthwhile educational opportunities for young people in Baltimore," **Congressman Elijah E. Cummings** says. "It is critical that we ensure our children understand that rewarding careers in STEM fields are possible and they need to receive that message at an early age. This program represents another example of the committed investment the University of Maryland, Baltimore and its partners have made to the education of Baltimore's youth and I applaud their efforts to bring innovative programs such as this to our city."

"In order to out-build and out-innovate the world, we must first out-educate," says U.S. Senator **Barbara A. Mikulski**, Chairwoman of the Senate Appropriations Committee which funds NIH. "This partnership will make sure that every student in Baltimore, regardless of race, has access to the opportunity ladder in the fields of biomedicine and research. I'm proud to put funds in the federal checkbook to ensure that Maryland continues to be a leader in preparing the next generation for jobs today and jobs tomorrow."

"There are very clear disparities in our current health care system, as well as specific cancer rates, and they fall along racial and ethnic lines. I'm proud of the progress that has begun to address real differences in minority health and health disparities and the role UMB will have in moving this effort forward, especially attracting more quality candidates from minority communities into the important field of biomedical research," says U.S. Senator **Benjamin L. Cardin**, who was responsible for elevating the status of the National Institute for Minority Health and Health Disparities. "I applaud the NCI Center to Reduce Cancer Health Disparities for making such a spot-on investment in the CURE Scholars Program, which is poised to be a leader in the effort to increase the number of top-notch cancer researchers from traditionally underrepresented populations. If we are to improve overall quality of care and lower health care costs in this nation, we must eliminate health disparities in both research and outcomes."

UMB CURE's focus upon cancer research and education in particular is appropriate for Baltimore, where health disparities mean higher rates of cancer and other chronic diseases than more privileged areas. African American city residents are diagnosed later and their cancer mortality rates are nearly 50 percent higher than the rest of the state, according to the Maryland Department of Health and Mental Hygiene.

"Cancer is an epidemic in socioeconomically disadvantaged and African American communities such as ours in West Baltimore," says **Kevin J. Cullen, MD**, professor of medicine and pharmacology at the [University of Maryland School of Medicine](#) and director of the University of Maryland Marlene and Stewart Greenebaum Cancer Center.

"We need more cancer researchers and clinicians to care for these populations now and in the future, as well as to raise awareness of ways to prevent cancer and to detect it as early as possible," says Dr. Cullen, lead investigator on the UMB CURE grant. "Cancer science and medicine are advancing, but those advancements are dependent upon talented, motivated professionals entering the field long into the future. We're excited about this opportunity to bolster the field of cancer research and care and, at the same time, to ensure bright futures for the youth in our West Baltimore neighborhood at the same time."

The first year of the UMB CURE project will build infrastructure to launch the pilot program in its second year. Researchers will complete a study to identify successes and failures in STEM (Science, Technology, Engineering, and Mathematics) career pipeline programs starting at the middle school level. They will examine existing pipeline programs in Baltimore in order to identify resources to benefit students graduating from the UMB CURE Scholars Program.

Designing the program will build upon existing relationships between UMB and institutions such as the Baltimore City Public Schools, the Mayor's Office, Associated Black Charities, the Downtown Partnership and others. Town Hall-style meetings will gather input from students, their parents and caregivers as well as community leaders, neighborhood associations and faith leaders to get feedback in the program's design and implementation.

In its second year, during the school year 2015-2016, UMB CURE will select its first cohort of at least 25 middle school-level students. They will be engaged in a continuum of career development activities of a period of years. The longitudinal track will begin with a first year including Saturday programs at UMB involving hands-on basic science laboratory activities. The students will visit the campus twice per semester to learn about careers in health care and cancer research. Evening events once each quarter will teach cancer literacy and provide interaction with researchers and graduate students. A month-long STEM summer camp at the UMB campus will provide hands-on science activities and learning opportunities, as well as fitness sessions.

The curriculum will incorporate existing UMB programs in local schools, including mentoring by UMB students, campus visits and tours, science festivals, after-school programs focused on college or career exposure, and high school biomedical internships mentored by university faculty. UMB CURE Scholars themselves eventually will have mentoring opportunities, working with younger students to show them what is possible through the program. The Scholars also will work closely with traditionally black colleges and universities in Baltimore, including Morgan State University.

Programs like UMB CURE can change the way that socioeconomically disadvantaged families think about their own future and that of their children, says **Brian Sturdivant, MSW**, director of community partnerships and strategic initiatives at UMB.

"Poverty can be self-sustaining, with parents expecting the same limited training opportunities and earning potential for their children," says Sturdivant. "We already work closely with the families of our neighborhood in many ways, meeting them in the schools and bringing children to our campus to see the resources available to them. We are trying to ensure that they do not see advanced training and health careers as beyond their reach. Pipeline projects such as the new UMB Cure program aims to instill in West Baltimore families the hope and even expectation of advanced education and job training for their children."