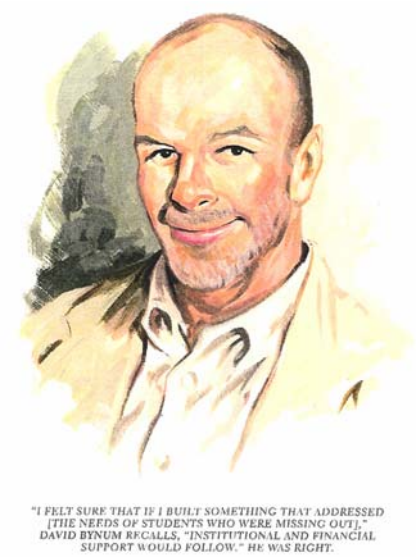
HHMI BULLETIN
Howard Hughes Medical Institute www.hhmi.org
Aug '06 | Vol.19 • No.03



"I FELT SURE THAT IF I BUILT SOMETHING THAT ADDRESSED [THE NEEDS OF STUDENTS WHO WERE MISSING OUT]," DAVID BYNUM RECALLS, "INSTITUTIONAL AND FINANCIAL SUPPORT WOULD FOLLOW." HE WAS RIGHT.

Turning on Students – and Teachers

West Virginia isn't the only place where one person's resolve and a little seed money are changing lives. At the State University of New York, Stony Brook (now Stony Brook University), David Bynum found himself teaching biochemistry and cell biology in a community where enormous gaps existed between the haves and have-nots, and the latter were largely absent from his classroom – specifically, from science education and careers. Feeling a need to reach out to a more diverse group of potential science majors, he borrowed a lab to offer summer research opportunities to disadvantaged students at two nearby community colleges.

Using his first HHMI grant (awarded in 1994), Bynum then remodeled and outfitted two labs at Stony Brook specifically for his purposes. He developed a summer residential research program for students from three high schools in economically disadvantaged districts, and he turned another campus laboratory into teaching center where middle and high school students could conduct hands-on biotechnology experiments. In the programs first year, more than 4000 students participated.

Bynum also created three courses and several workshops for biology teachers. Demand was so great for these courses that he sought and received New York State approval to offer a master's degree in biology teaching rooted in hands-on science. Eventually he parlayed an HHMI grant of $1 million into more than $10 million in external funding and complete buy-in from the university.

"David is just phenomenal," says Shirley Strum Kenny, president of Stony Brook University. "It is incredible how he is able to bring kids to a love of science. He started small, and he built step by step. He's low-key and unassuming, but he knows where he wants to go, and he never wavers."

Bynum says he realized in the early 1990's that "science in the United States was grade A, while science education was more like a C. Improving science education and providing more opportunities for students who traditionally had missed out was clearly in the individual and national interest. I felt sure that if I built something that addressed those needs, institutional and financial support would follow. Besides, it's such satisfying work."

Bynum won the 2002 Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring. True to form, he used the $10,000 prize to generate more than $100,000 in fellowships for prospective science and math teachers who do their student teaching in districts designated "high-need".

More than 80% of the 127 school districts of Long Island (where Stony Brook is located) now participate in Bynum's programs.

Kenny credits it all to Bynum: "He is growing our scientists of the future."