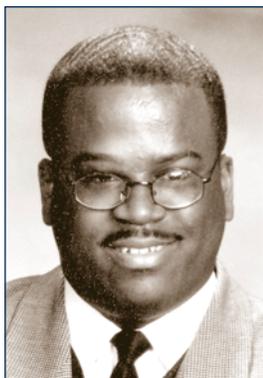


Biophysicist in Profile



Paul Adams

Since his early days as a young boy in Baton Rouge, Louisiana, *Paul Adams* always knew he would be involved in science. He still remembers receiving his first chemistry set from his parents for his eighth birthday. While both his parents were musicians and not involved in science, they urged their son to be the best that he could be. “Even though he may not be the best there is, to do his personal best means success in life,” his parents told him. And that’s what Adams set out to do.

In high school, Adams remembers science mainly because the work was challenging, and one teacher in particular was supportive and pushed him—subtly—to succeed. Adams reflects that one of his toughest obstacles has always been getting serious about his studies. During his senior year in high school, his chemistry teacher, *Fran Frost*, kept him on track and made him study for an extra Advanced Placement exam even after his graduation. Although he has not seen her since graduation, he credits her with giving him the extra nudge he needed. He is looking forward to his high school reunion in 2006, and to thanking her for where he is today.

Adams started college at Louisiana State University (LSU) in 1986 and again did not take his studies very seriously. In his junior year, while working in the mailroom at LSU, Adams took an Analytical Chemistry class taught by *Mary Barkley*. He enjoyed the challenges of figuring out how things worked in biophysics. Barkley noticed that each time the students put their homework equations on the board, Adams would find a different approach. He never “aped the textbook solutions,” she recounts, but he always got the same end result. This ‘thinking creatively’ intrigued Barkley, who says that “...diversity in science means big progress.” Recognizing his potential, she asked him what he was doing working in the mailroom and gave him a job in her lab. But she did not let him off easy. Barkley admits that she held

him to higher standards. “I wanted him to be prepared to handle the universal skepticism that he would encounter as a minority,” she explains. Being prepared meant that he needed to be better than most, sufficiently precise, structured and disciplined. Although Adams speaks about how his parents were the greatest positive influence in his life, he credits his professional life in large part to Barkley, his ‘professional second mother.’ “Without her influence and mentorship,” Adams says, “I’d be in some chemistry lab somewhere as a base level chemist.”

Following acceptance as an early admission candidate at the LSU Medical Center Medical School in Shreveport, Louisiana, Adams planned to go into surgery. While he enjoyed the textbook learning, he was not so enthused about “putting his hands on people.” He also found it difficult to

maintain the emotional distance necessary when treating ill patients. There was also a major event in Adams’s life at this time—his mother was diagnosed with cancer. After just one year, Adams left medical school to return home.

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Upon returning to Baton Rouge, he decided he wanted to pursue the PhD. He completed his BS in Biochemistry from LSU’s main campus, then enrolled in graduate school there. After a year of lab rotations, and six months of a second year in another lab, a spot opened up in Barkley’s lab at LSU, and Adams took it. When Barkley moved to Case Western Reserve University in the fall of 1996, Adams followed. Still reeling from the loss of his mother in February of that same year, he felt the move would help, and he needed to keep focused on his career. He found that his parents’ past support and belief in him helped keep him on track more so than ever.

Working in Barkley’s lab also helped. Barkley involved her students in weekly meetings to discuss what each of them was up to. These meetings fostered collaboration and enabled the group to share experiences. In spite of this, Adams did have times when he felt alone. There were no minorities in the lab, and at times he felt that nobody understood him. “They would ask why I did certain things, things that were a part of my African-American culture,” he recounts, “It was not a negative experience, it just left me feeling that nobody was on my side.”

His experience made him realize how important outreach and mentoring could be. Barkley recalls his involvement in public service through his church, and his dedication to mentor high school students even in his early days in Louisiana. His experience on the

“...to do his personal best means success in life,” his parents told him.

Minority Affairs Committee (MAC) have shown him that minority students today have more going for them than he had. When he mentors students and visits schools, he speaks to large groups. Being in a group setting lets them know that they have each other. Having someone to relate to, someone who is going through the same experiences is beneficial to their success. Adams works with MAC to inform students about the advantages of biophysics, that it is so much more than biology. Coming from a chemistry background, he tells them of all the opportunities in the field of biophysics. He wishes to stress to students that “there is so much more to get out of biophysics than what we put into it.”

Adams is also involved with the Society for Advancement of Chicanos and Native Americans (SACNAS) and is looking forward to its meeting this September. This year the MAC will have a booth set up. “Having the one location,” he says, “we can draw more people to us, and not have to seek them out.”

After he completed his PhD in Chemistry at Case Western, Adams moved east to work in Robert Oswald’s

lab at Cornell University in New York, where he is today. “I like the fact that I am in an environment that affords me the chance to try and further develop my abilities as an independent researcher, but still have Oswald’s guidance when things are not going well in the lab,” Adams explains.

Adams chose to work at Cornell because he thought the lab would foster his development as an independent investigator, and allow him to continue to learn about NMR spectroscopy.

“This is what I like,” he says, “and also because the project has implications for understanding how cancer propagates itself and that is very personal to me.”

Helping minority students pursue higher goals has become a family affair. Adams’ wife of a year and a half, Stephanie, works as a counselor in the multicultural affairs office at Ithaca College. Her work entails mentoring and fostering success in underrepresented minorities at her school, much he says, like his efforts on the MAC where he

exposes underrepresented minorities to the vast opportunities in biophysics that they may not be aware of.

Adams recalls that Barkley spent countless hours in the lab, “She was not one of those people who left at five every day.” Adams strives to be like her. “It will be tough to live up to her, but I’m trying,” he explains. When he is not in the lab or helping students, Adams enjoys racquetball and walking.

The eight year-old boy with a chemistry set has come a long way. He was recently awarded a National Science

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Foundation minority postdoctoral fellowship for his ongoing research on the structural characterization of mutant forms of a

G protein known to be involved with cellular transformation. While this is his proudest professional moment, he reflects that, “Biophysics was not discussed at the dinner table, and I chose a career that does not consist of many minorities.” He thinks about how his forefathers would be proud to see where he is today. “In spite of everything, I am a doctor, but I know that my greatest achievements are yet to come.”

Biophysicists in the News



Peter Satir, Albert Einstein College of Medicine, Society member since 1969, received the Henry Gray Award for unique and meritorious contributions to and achievements in anatomical sciences by the American Association of Anatomists.



Harden McConnell, Stanford University, Society member since 1980, received the 2002 Welch Award in Chemistry for lifetime achievement in basic chemical research.