

## ACS Scholars

By Mindy Levine

Shaymus Hudson is a self-proclaimed science nerd. Growing up, he watched “Bill Nye the Science Guy” on television. He studied math and science at a Governor’s School for Science and Technology in rural Virginia, and did a science project at a local community college during his junior year of high school. When it was time for him to apply for college, he applied to a variety of science and technology schools, including Virginia Polytechnic Institute and Rochester Institute of Technology. Although he applied to MIT, it seemed like a stretch, both geographically and financially. Then he received a scholarship from the American Chemical Society through the ACS Scholars program, which helped him join the MIT class of 2012. “I’m very, very grateful to the American Chemical Society,” Mr. Hudson said. “Every little bit helps.”

Many of the Scholars interviewed agreed with Mr. Hudson that the ACS Scholars program helped them attend a university that would have been otherwise inaccessible. Merricka Livingstone was planning on attending the University of Florida. Alden Williams thought she would go to Columbia University. Thanks in part to the ACS Scholars program, both of them are currently freshmen at MIT. “I really appreciate being here, and the opportunities I have,” Ms. Williams said.

### *Program Structure*

The ACS Scholars program was established in 1995 to provide scholarships to college students from historically under-represented minority groups. “The goal is to have the students enter the chemical sciences, and to change the face of a field that historically has been dominated by white males,” said Dr. Robert Hughes, director of the ACS Scholars program since 1998.

Each year the program receives approximately 600 scholarship applications, from which 100-120 scholarships are awarded. The 20 members of the selection committee award the scholarships based solely on academic merit, with awards ranging from \$1,000-\$5,000 per year. Students, who are selected either during their senior year of high school or freshman year of college, major in a chemistry-related field - for example, chemistry, chemical engineering or biochemistry.

### *Funding Sources*

The majority of the funding for the ACS Scholars program comes from the ACS itself, although some corporate and private donors contribute. In general, the current economic climate has made it difficult to attract potential donors. Because the ACS covers all administrative and overhead costs, all donations are used directly for student scholarships.

### *Mentoring*

Dr. Hughes partners with mentoring consultant Dr. Zaida Morales-Martinez, emeritus professor at Florida International University, to identify mentors for the program participants. “I look for people who have the three C’s – committed, caring, and concerned,” said Dr. Morales-Martinez, or “Mama Z,” as she is known to program participants. “I am like a mother to the students,” Dr. Morales-Martinez said. “Sometimes my own kids get jealous.”

Dr. Morales-Martinez is extraordinarily successful in finding mentors for the Scholars by the time they graduate college. Of the Scholars who graduated in 2008, for example, 91% had a mentor by the time of graduation. Most of the mentors are faculty members at the Scholar’s college, although there are some corporate mentors as well. “The mentors are not necessarily from under-represented groups,” Dr. Morales-Martinez said. “You don’t have to be a minority to mentor a minority.”

### *Follow-up*

A key component of the Scholars program is the detailed records Dr. Hughes maintains on all alumni of the Scholars program. Currently, Dr. Hughes has information on 89% of the program alumni. Of the approximately 2,200 alumni, 66 have received PhDs in a chemistry-related field, and an additional 180 students are enrolled in PhD-granting programs. Dr. Robert Lichter, of Merrimack Consultants, LLC, who has been heavily involved in the ACS Scholars program since its inception, reported that approximately 12 alumni are currently faculty members in the chemical sciences. This detailed information allows Dr. Hughes and Dr. Morales-Martinez to facilitate networking and communication between current and former ACS Scholars.

### *Event Planning*

There is a limited amount of formal programming for ACS Scholars, although the Scholars are invited to attend national ACS meetings. The program provides the Scholars with free first-year membership to the ACS, which includes a subscription to *Chemical and Engineering News*. Several of the ACS Scholars talked about how interesting they find the publication. “I read it,” said Ms. Williams, “and it’s so much fun.”

Dr. Harry Bermudez, assistant professor of chemical engineering at the University of Massachusetts Amherst, and alumnus of the ACS Scholars program, spoke about the advantages of being a member of the ACS. “There were a bunch of doors that opened just by being a member of ACS,” Dr. Bermudez said. “It got me on the road to thinking about research opportunities.”

All of the local ACS Scholars interviewed attended the NESACS-NIBR Town Hall Forum entitled, “The Prospects for Chemistry in the Future US Economy,” on February 18<sup>th</sup>. For the college freshmen, it was their first experience at a local ACS event. Nathan Nakatsuka, Harvard class of 2012, has had more opportunities to interact with the local ACS section during his

almost two years as an ACS Scholar. “Northeast ACS is amazing,” Mr. Nakatsuka said. “The ACS Scholars program gives us lots of opportunities.”

Many ACS Scholars expressed an interest in more programming and networking events. “I would be interested in having people from companies come and talk about what they do,” said Ms. Livingstone. “Talking to people in graduate school would be helpful. So would a mixer with local ACS Scholars.”

### *Anniversary Celebration*

The ACS Scholars program will mark its 15-year anniversary in 2010. There will be anniversary events at both the spring ACS meeting in San Francisco and the fall ACS meeting in Boston. A technical symposium in San Francisco will include scientific presentations from alumni of the ACS Scholars program. In Boston, there will be a symposium that focuses on the success of the ACS Scholars program.

### *Future Directions*

The ACS Scholars program had hoped to double the number of participants over the next five years, explained Dr. Hughes, but that plan got derailed by the difficult economic climate. “Right now the goal is just to maintain current participation,” said Dr. Hughes. “Hopefully as the economy improves, we can reevaluate things.”

Dr. Bermudez is hoping to implement a research component to the program. “Now that I’m in a faculty position, I have the resources to open doors in my own research laboratories,” said Dr. Bermudez, “and invite ACS Scholars and other minority students.”

“There is a long way to go until minority groups are adequately represented,” Dr. Bermudez said. “Until that time that ACS decides that we’ve done all that we can do, there will continue to be a need for the Scholars program.”