

Project SEED

By Mindy Levine

MeiWang could have gone the route of other local high school students, spending her summer working as a camp counselor or a lifeguard. Instead, Ms. Wang spent the summer of 2008 studying the inhibition of sugar-processing enzymes. Ms. Wang was a participant in Project SEED (Summer Experience for the Economically Disadvantaged), a chemistry research internship program for economically disadvantaged high school students. Through the program, she found an internship working in the laboratory of Professor Louis Liotta at Stonehill College. “My favorite part of the program is the surprise,” said Ms. Wang. “Unlike experiments I’ve done previously in school, these experiments did not have guaranteed results. Each assay is a surprise.”

Project SEED has existed for forty years, and is organized and coordinated by the National Project SEED Office, a division of the American Chemical Society. Project SEED allows high school students from low-income families to perform paid scientific research at local colleges and universities. The program has branches in 34 states, Washington DC, and Puerto Rico, with approximately 400 students, 200 mentors, and 100 coordinators planning to participate in the program this summer. Each mentor supervises 1 to 2 high school students in a chemistry research project.

One of the key goals of Project SEED is to ensure that the students are actively involved in substantive research projects. “It is important to see that the students are doing chemistry, and not just washing glassware,” said Ms. Cecilia Hernandez, director of the National Office of Project SEED. For example, Hao Trieu worked with Professor Cheryl Schnitzer of Stonehill College in the summer of 2008 on the synthesis and purification of biodiesel from waste vegetable oil in the cafeteria. “I love this project because it is about improving our environment, and in the future I believe that this project will expand and become very successful,” said Ms. Trieu. “My future plan is to promote environmentally-friendly actions within my town of Randolph.”

Professor Schnitzer, an associate professor of physical chemistry, has been the coordinator of Project SEED at Stonehill College since 2001. Stonehill College is one of the few local colleges that are involved in Project SEED. Professor Schnitzer explained that the chemistry department decided to start a Project SEED program as part of the strategic goals of the department to introduce under-represented groups to the sciences. “It has been a very successful program,” said Professor Schnitzer, with between 2 and 5 students participating each summer since 2001. “These economically disadvantaged students are also extremely academically talented as they must go through a rigorous application and interview process.” As part of the Project SEED program at Stonehill College, the students are involved in several auxiliary activities. There are college-wide weekly luncheons, for example, that the SEED students attend. Joel Anifowose, another Project SEED student at Stonehill College, said, “My favorite part of the program was all the meetings we did with all the college students...including the weekly lunches.”

Another aspect of Project SEED provides substantial assistance to students navigating the college application process. For example, at Stonehill College, the students meet with the Dean of Admissions and a representative from the Financial Aid Office. “I got a chance to meet great people and learned steps and tips for college applications” from these meetings, said Ms. Wang. Mr. Marc McKithen participated in Project SEED in 1991, and is now an attorney in the intellectual property group of Milbank, Tweed, Hadley & McCloy LLP. He also received advice in navigating the college application process while he was a student in Project SEED at Rider University, working for Professor John Sheats.

This advice ultimately helped Mr. McKithen obtain a full academic scholarship to Rider University.

For many students, simply being exposed to college life is novel and exciting, as they are often the first members of their family to attend college. “My summer research experience as a high school student was my first encounter with college life,” said Dr. David Blauch, a project SEED alumnus (1979) and professor of chemistry at Davidson College. Dr. Imelda Udo, an obstetrician-gynecologist (Project SEED 1990), agreed that a significant benefit of Project SEED was that it allowed her to be on a campus, and “see what campus life was like.”

One of the goals of Project SEED is to “encourage students to go into science,” said Mr. McKithen, and approximately half of the students decide on science-related careers. However, even if the alumni decide not to pursue a career in science, Mr. McKithen said, “I have never met someone for whom the program was not beneficial.”

According to Professor Schnitzer, the main goal of Project SEED is to “introduce great high school students to research in a laboratory setting.” Dr. Udo agreed that one of the goals of Project SEED is to “get under-privileged students...into a science-oriented environment, and allow them to be exposed to science in general.” Additionally, Dr. Udo added that many inner-city high students are unaware of the variety of career options available to them. Project SEED teaches them about the breadth of career options.

Overall, participants had very few negative things to say about the program. Mr. Anifowose said, “I really can’t find an improvement for the program... it is in great shape.” Some of the SEED alumni expressed an interest in more follow-up and contact with the national SEED office. Dr. Udo suggested that the national office should call the alumni once each year to check whether they need academic or career assistance.

Ms. Hernandez spoke about the tremendous job gratification that she receives from Project SEED. “We are transforming many lives,” she said, “Not only the lives of the students, but also the lives of their families.” Ms. Tahirat Nasiru, who participated in Project SEED in the summer of 2008, added, “The SEED program blessed me with a mentor and friend.”