When she was in high school, Sandra Shumway, now a research professor in marine sciences at the University of Connecticut at Avery Point, attended (and won) the State Science Fair at MIT. At the fair, her work was judged by scientists from the Woods Hole Oceanographic Institute. One judge left a long note by her project encouraging her to keep at it.

“Come visit Woods Hole!” he wrote, promising to meet with her to discuss her work. His support helped her to “understand the importance of the mentoring process, and what a little encouragement can do for a kid,” Shumway said.

When Shumway’s colleague Dianna Padilla, a professor of marine ecology at Stony Brook University, recently approached her with a student who needed her help, Shumway took this opportunity to pass the spirit of mentoring on to a new young scientist and “give back to the scientific community.”

The young woman in need was Samantha Garvey, then a 17-year-old student at Brentwood High School on Long Island, who gained national acclaim for becoming a semifinalist in the prestigious Intel Science Competition, even as she faced a formidable personal struggle. Both of Garvey’s parents were injured in a car accident last year that left her mother, a nurse’s assistant, unable to work. It became impossible for the family to pay rent and on Dec. 31, 2011, they were evicted from their home, forced to relocate to a homeless shelter.

Though she did not win the Intel contest, participation in the competition, while dealing with the challenge of homelessness, brought Garvey a flurry of national attention. She received an invitation to the White House Science Fair and had a seat at President Obama’s State of the Union Address. Ellen Degeneres interviewed her on her daytime talk show. Her picture appeared on the cover of Newsday magazine. And she won a $50,000 scholarship from AT&T–which Garvey hopes to put toward her college tuition—and a home for her family.

Leading up to all this, Garvey conducted two-and-a-half dedicated years of research on ribbed mussel predation in Padilla’s lab at Stony Brook. Padilla hoped to bring her and some classmates to the 2011 annual National Shellfisheries Association (NSA) meeting with money from a Toyota TAP-ESTRY Grant, an award offered yearly by Toyota Motor Sales, USA to science teachers. Rebecca Grella, Garvey’s science teacher and a Ph.D student of Padilla’s, won the grant in 2010.

Shumway is a past-president of the NSA, currently serves as editor of the Journal of Shellfish Research, and is the NSA conference manager. She wasted no time in securing a place for Garvey and her classmates at the NSA annual meeting in Baltimore in March, 2011.

“Facilitating participation of undergrads at a professional conference is rare,” said Shumway, “but it was nice to see a young, enthusiastic scientist. It was good for everyone.”

The process came with its share of difficulties. Padilla and Shumway faced piles of paperwork and waivers in securing hotel accommodations and appropriate supervision for minors on the trip to Baltimore, but both women agree that their efforts were undoubtedly worthwhile.

At the meeting, Garvey presented her findings about how ribbed mussel from Long Island Sound respond to the presence of an invasive and predatory Asian shore crab species by growing thicker shells. She shared her poster with the group of graduate students, post-docs and scientists.

“She did a remarkable job interacting with grad students and scientists, and exhibited great poise and self-confidence” Shumway said of her participation in the meeting.

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Such a remarkable job, in fact, that Shumway facilitated an invitation from the NSA for Garvey and her high school science teacher Rebecca Grella, who has also played a tremendous role as a scientific mentor to Garvey, to attend the 2012 annual NSA meeting in Seattle in April.

“It is a huge deal for a high school student to be invited by a professional organization,” said Shumway, “and the first time an undergrad has been both invited and sponsored by NSA.”

Padilla credits the opportunity to answer and ask questions of her scientific peers during the earlier meeting as an important factor in Garvey’s success.

“The NSA is very welcoming, and they engage students in the scientific conversation,” said Padilla. “Questions asked by other scientists lead her to formulate her next study.” Simply being in the midst of established scholars, “seeing other studies, learning about other researchers, hearing questions that others were asking,” was helpful and encouraging for Garvey, Padilla said.

In fact, Padilla thinks Garvey’s involvement with the NSA “absolutely played a role in her being chosen as an Intel semifinalist.”

After the meeting, Padilla paid for Garvey’s one-year membership to the NSA, which included a subscription to the *Journal of Shellfish Research*. Though she said it is also “unusual to see high school student involvement in peer-reviewed literature,” Shumway “anxiously awaits a manuscript for publication from Samantha,” about her work with ribbed mussels.

The NSA, in turn, has benefitted from the extensive press coverage Garvey received after becoming an Intel semifinalist. “She’s done as much for NSA as we’re doing for her” Shumway said.

Shumway recalled seeing an NSA hat and mug peek out from behind Garvey in a video from the White House Science Fair that was aired on national television and on the Internet, and Sam’s story highlighted ABC and NBC evening news casts.

According to Shumway, members of the NSA are also pleased with Garvey’s participation.

“It encourages other students to see a success story like Sam who broke down boundaries and limitations.”

Garvey’s success, and ability to tell her story to the world, had even more far-reaching benefits beyond the NSA.

“She is an ambassador for shellfish research,” said Padilla. “Her work put shellfish research into the spotlight.”

Researchers everywhere can delight in having a new, bright, young spokeswoman, and both the University of Connecticut and Stony Brook University can share in the fortune of having ties to Garvey, Padilla said.

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“She has really used this opportunity to convey her science and also illustrate the importance of good teachers and mentors.”

**About the Author:**

Charlotte Kading was a student in Greg Stone’s newswriting class at the University of Connecticut, Avery Point, when she wrote this article. She is an English major in her junior year. Charlotte, who wants to pursue a career in science writing, is also currently a research assistant in Hans Dam’s plankton ecology lab.

**Editor’s note:**

Samantha Garvey told news reporters she would rather read the *Journal of Shellfish Research* than *Glamour* magazine! Her family is in a new home.