



## SCIENCE FROM SCIENTISTS

# Inspiring the Next Generation

A fast-growing nonprofit works to spark and nurture a passion for STEM in classrooms around the Bay Area—and beyond.

Growing up in the Bay Area, Erika Ebbel Angle was a science lover from an early age, winning numerous national science fair competitions for a six-year independent project she began as a middle school student in Hillsborough. After graduating, she moved across the country to attend MIT and was dismayed to read news stories about the waning interest in Science, Technology, Engineering, and Math (STEM), especially among young girls. What could she do to help reach students in elementary and middle school and keep a passion for science alive, she wondered.

The answer was Science from Scientists, a nonprofit she founded while still at MIT in 2002. Initially, Sfs focused on getting elementary school kids excited about science through participation in science fairs (something close to Angle's heart). It didn't

exactly take off like a rocket. "We had to beg and scrounge and operate in a very lean way in order to prove the concept such that people would believe in us," Angle recalls.

Thanks to an unexpected detour—winning the title of Miss Massachusetts in 2004—Angle suddenly had the platform she needed to expand Sfs's reach and mission. Her new vision: a program

that would send selectively chosen and trained (and, importantly, charismatic) scientists with advanced STEM degrees into classrooms to teach hands-on science lessons to kids in grades 3–8. The nonprofit currently partners with 76 schools in Northern California, Massachusetts, and Minnesota and puts emphasis on collaborating with each school's faculty, following statewide education standards, and providing measureable results via student and teacher surveys. Its in-school programs served 9,000 students last year across the three states, and it has raised millions of dollars in funding.

Sfs relies on frequent surveys of both students and teachers to ensure its approach is making a real difference. "Our students' responses to our program are overwhelmingly positive," notes





runs the Boston-area for-profit biotech startup, Ixcela. “There are millions of non-profits in the U.S.,” she continues. “Making sure we differentiated ourselves and had clear metrics that indicated impact helped us to grow and continue to get funded. We had to adapt.”

That evolution included the launch in 2017 of SpectacuLAB, a stage show at Epcot at Disney World, and a collaboration that same year with America’s Cup in Bermuda, as the international sailing competition’s official educational partner. In addition, and not surprisingly, SfS is in high demand in other cities across the country and abroad. Angle hopes to simultaneously focus on expanding the list of permanent sites, as well as continue to experiment

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The goal of Science from Scientists is to ensure the nation’s youth is competitive globally in STEM fields through exciting, informative, and engaging training by practicing scientists. The lesson topics address many standards within the new Next Generation Science Standards, as well as other state standards.

us to come more often.” Teachers, for their part, “enjoy watching their students come alive with our hands-on lesson plans that are relevant and informative, but also fun,” Geraghty continues. “They expressed that they have observed an improvement in students’ critical thinking skills and their ability to work within a group and adapt to positive role models.”

“Building a business is hard,” says Angle, who earned a Ph.D. in biochemistry from Boston University School of Medicine and also

Patrice Geraghty, Ph.D., director of California operations for SfS, which operates in 14 schools in San Mateo and Santa Clara counties. “Their ‘advice’ for us is that they would like

with large-format events that can reach thousands of children at a time—perhaps by acquiring a long-term corporate partner.

The big-picture metrics from the nonprofit’s surveys tell an important story, but for Angle, the feedback she and her staff receive from individual students or families is equally rewarding. At a recent open house for nonprofits in Massachusetts, for example, a woman approached the SfS table and introduced herself as the mother of a female program alum from 2005, when the little girl was in 4th grade. “Now, many years later, the daughter is in the process of getting her Ph.D. in mechanical engineering and attributes that to having had Science from Scientists when she was a young student,” Angle shares. “She had a female SfS instructor who had always encouraged her to be a scientist/engineer and was inspired to do so. These are the types of stories we absolutely love to hear.”

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