

# Education, Outreach and Careers

AAAS brings exciting opportunities to science students and professionals in the science and technology community. Helping build bridges to careers in science, technology, engineering and mathematics bolsters the STEM work force and all that it can bring to our lives. At a time when STEM education is struggling to produce enough graduates to keep the United States' science and technology sectors competitive, AAAS reaches out through a variety of programs to make sure talent and interest in scientific endeavors are nurtured.

## EMERGING RESEARCHERS IN STEM

In February 2012, the President's Council of Advisors on Science and Technology made an announcement: For the United States to remain competitive in the fields of science, technology, engineering and mathematics, the country must increase its number of STEM graduates by 1 million over the next decade, which is a 34 percent rise over the current number of students who graduate in those fields.

Emphasizing that goal, the 2012 Emerging Researchers National Conference—sponsored by AAAS Education and Human Resources and the National Science Foundation Division of Human Resource Development—supported a diverse group of STEM students and helped them along their path to scientific careers. The conference drew 885 attendees, including 421 undergrad student presenters, 89 grad student presenters and 56 exhibitors.

The students shared their scientific research projects, met with peers from all over the country, got feedback from mentors, and attended workshops on applying to graduate school, writing abstracts, and exploring careers beyond academia.

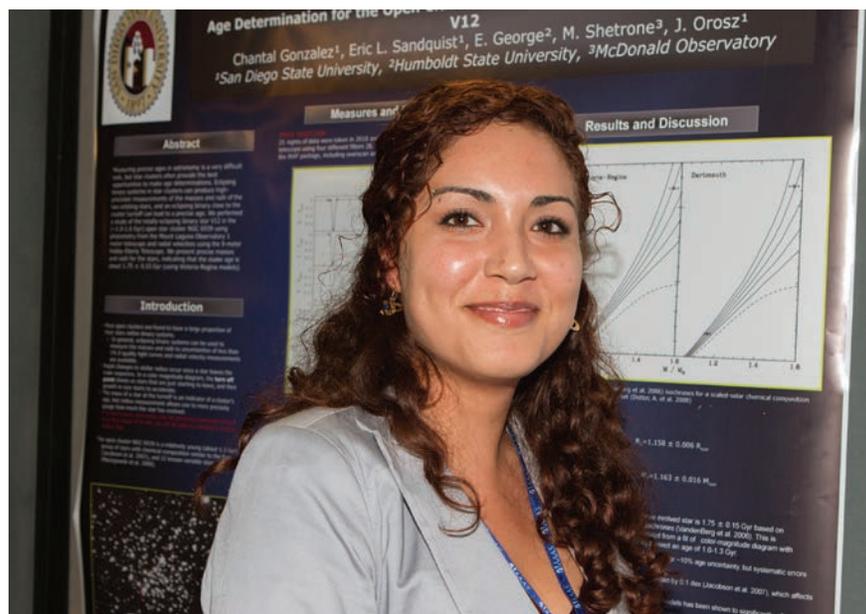
## NOYCE SCHOLARS CONFERENCE

The National Science Foundation's Robert Noyce Teacher Scholarship program recruits

and prepares STEM undergraduates and professionals to become K-12 science and mathematics teachers. Having participated in the program for five years, AAAS helped organize the scholarship program conference in May 2012. More than 600 program participants, from some 225 colleges and universities, attended.

Just as national science testing showed stagnating scores, with just a third of eighth-graders at or above the proficient level for their grade, a report released by AAAS at the conference described the innovative strategies used by the scholarship program to attract and prepare teachers to address STEM learning challenges.

Chantal Gonzalez of San Diego State University received a first place for her poster presentation at the 2012 Emerging Researchers National Conference. She was one of 885 participants in the event, supported by AAAS and the National Science Foundation.





Above: Children who took part in GlaxoSmithKline's 2012 *Science in the Summer* program, administered by AAAS in the greater Washington, D.C., and Baltimore, Maryland area, took part in fun, hands-on chemistry activities.

Below: Science NetLinks from AAAS provides K-12 teachers, students and families with resources for teaching and learning science. See <http://scienceetlinks.com/>.

The program finds and develops the teachers by offering them a chance to work in after-school programs, mentoring them with the help of local educators, and providing them with funding for research projects of their own.

Improving STEM learning requires, among other things, “a terrific teacher for every student,” said Shirley Malcom, director of AAAS Education and Human Resources.

#### SCIENCE NETLINKS

Science NetLinks, a Web site produced by AAAS, won three Interactive Media Awards in 2012, earning the Best in Class designation in the education, nonprofit and science/technology categories. The site, which is part of Thinkfinity, a partnership between the Verizon Foundation and ten education organizations including AAAS, offers free resources, interactive features, podcasts and hands-on activities for K-12 teachers, students and families.

After a redesign based on user surveys that tied the site's science content more closely



to current events and news, the site—with its daily science news content, online science education community and improved resource tools—won perfect scores for content and feature functionality. “The updated site and dynamic resources will keep students and teachers engaged, informed and coming back,” said Suzanne Thurston, AAAS project director.

#### GSK's SCIENCE IN THE SUMMER

Children at a community center in Washington, D.C., may have been apprehensive about having science class in July, but after just one day of *Science in the Summer*, they were asking when they would get more hands-on, inquiry-based experiences.

A GlaxoSmithKline program administered by AAAS, *Science in the Summer* was provided to elementary-school students at 19 libraries and community centers in 2012. All were located in the Washington, D.C., and Baltimore areas. AAAS oversees the curriculum, recruits and trains teachers, makes site visits and provides materials to each host site.

“The reaction from girls and boys, parents and staff at the host sites has been very positive,” said Program Manager Betty Calinger.

#### SCIENCE CAREERS

Published by AAAS, *Science Careers* offers key resources, news and information to help advance careers in science and technology. *Science Careers Jobs* offers thousands of industry, academic and government jobs, job e-mail alerts, and a resume/CV database. The Careers Forum offers the opportunity to connect with and receive advice from peers and advisors from industry and academia. See [www.sciencecareers.org](http://www.sciencecareers.org).

In 2012, *Science Careers Business* published *Career Trends: Industry or Academia*, a new booklet featuring articles on advancing in academia, preparing for a career in pharmaceutical research, and the benefits of biotechnology training programs.

AAAS and *Science Careers*, in partnership with the Burroughs Wellcome Fund, the Federation of American Societies for Experimental Biology, the University of California, San Francisco, and the Medical College of Wisconsin, launched MyIDP, a Web-based tool created to help graduate students and postdocs in the sciences define and pursue their career goals.