

Scientists seek to increase science literacy

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A scientist at the University of Alaska Fairbanks and colleague at Emory University are seeking to persuade the National Science Foundation to reevaluate its decision to cancel a program that has placed 10,000 science graduate students in more than 6,000 K-12 public schools across the country.

In an editorial in the July 15 issue of the journal *Science*, UAF biology professor Richard Boone and Emory University professor Pat Marsteller advocate for developing an enhanced version of NSF's Graduate Science, Technology, Engineering and Mathematics Fellows in K-12 Education, or GK-12, program.

The program gives five-year grants that typically support eight to 10 graduate students a year. UAF received a five-year GK-12 grant in 2010 to place 10 graduate students per year in classrooms in the Fairbanks North Star Borough and the remote Southeast Islands School District in Thorne Bay.

"Young, dynamic scientists are spending 10 hours a week bringing their own research into the classroom and engaging K-12 students in original scientific investigations," said Boone who is the principal investigator for UAF's GK-12 program. "This program is a highly effective and captivating way to improve [science education](#) for K-12 students and their teachers, and it benefits graduate students by improving their teaching skills."

Boone notes that no other program explicitly provides what the GK-12

program does. He and Marsteller suggest developing a "GK-12 enhanced" program that has an explicit interdisciplinary focus for graduate students, promotes connections with other federal agencies such as NASA and the National Institutes of Health, and tracks effects on K-12 students' learning as well as benefits for the graduate students.

"It's important to get [elementary students](#) and their teachers excited and knowledgeable about science now because by the time students are undergraduates it can be too late," Boone said. "Compared to their peers, the GK-12 fellows are more engaged in research and better able to explain STEM concepts to nontechnical audiences."

Boone also notes that an external, independent review of the program in 2010 found "substantial and credible evidence" that the program was achieving its goals. Boone and Marsteller contend that the program has been a powerful force for improving education in the United States and that it's time to take the program to the next level.

Provided by University of Alaska Fairbanks

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