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ReSciPE for Scientific Inquiry: Professional Development for Scientists to Support Their Work With Education

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Session OS28, Friday 12/15/06, 9:00 AM—Moscone South Rm 310

Funders and institutions are asking scientists to become more involved in communicating the “broader impacts” of their work with the public. Many scientists also wish to contribute to public science literacy and high-quality science education in schools. The ReSciPE Project—Resources for Scientists in Partnership with Education—is providing professional development workshops and other resources to scientists who are involved in education as volunteers or through professional commitments. As of fall 2006, we have presented 16 workshops on “Scientific Inquiry in the K-12 Classroom” to over 350 scientists and science educators at professional meetings, laboratories, and universities from Massachusetts to Hawaii. We will describe the project goals and our model for helping scientists to become more effective in working with students and teachers. Evaluation results from pre- and post-workshop surveys of over 200 participants demonstrate that we are reaching an audience of working scientists as well as science educators and E/PO specialists, that our audience is diverse in gender, ethnicity, and career stage, and that the workshops are effective in broadening participants’ ideas of their potential role in education. However, they also have ongoing needs for both knowledge and support. We argue that working with education or other public audiences is an increasingly important professional skill for scientists and offer this project as one experiment in providing appropriate professional development for this work.

Understanding Scientists’ Involvement in Education—Their Interests, Activities, and Needs: Research Results from the ReSciPE Project

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The involvement of scientists in education has been cited by national leaders as essential for strengthening US science education at the K-12 and higher levels. While many individuals and groups have developed expertise in designing and implementing programs that engage scientists with students or teachers, there is little research evidence that helps us understand what motivates or discourages scientists from such involvement, the benefits and costs to them of participating, and the barriers they face that must be addressed to involve them effectively. The ReSciPE Project (Resources for Scientists in Partnership with Education) has offered a workshop on “Scientific Inquiry in the K-12 Classroom” to over 350 scientists and science educators across the US. These workshops have reached a wide audience of science professionals who undertake activities in science education, whether individual or institution-based work, for work or as a volunteer. The project aims to help these “education-engaged scientists” pursue their education work more effectively, but has also drawn on this group as a research sample for an evaluation-with-research study to investigate scientists’ involvement in education. Pre- and post-surveys have enabled us to characterize the demographics of the participants and measure their self-reported knowledge and learning about education, especially inquiry-based science. Follow-up interviews have provided insight into their education activities, motivations, interests, difficulties, and needs. We will report on recent research findings from this study and place them in context of national needs and efforts to engage scientists in education.