

Panel Session II and Table Discussions

Where the rubber meets the road: Strategies and best practices for tackling challenges related to working with the K-12 community

Saturday, April 14
10:30 am – 12 noon
Assembly Room, 4th floor Rackham

Session Abstract

An impressive panel of seasoned veterans to (relative) “newbies” will offer their insights, strategies and best practices for tackling the challenges that can arise in K-12 outreach programming. Topics to be discussed are: *teacher professional development, strategies for getting K-12 students excited about science, particularly those who are historically underrepresented in STEM fields, recruiting school districts for sustainable partnerships, recruiting lead teachers for sustainable partnerships.* We will use an iterative format for our session, panel presentations and tabletop discussion, to foster lively discussions and the generating and sharing of ideas.

Panelists

Mary Louise Bellamy

“Strategies for getting K-12 students excited about science, particularly those who are historically underrepresented in STEM fields”

Over the last seven years, the NSF Center for Environmentally Responsible Solvents and Processes (CERSP) has developed and successfully implemented several K-12 programs designed to help students become interested in STEM related fields. We have made every attempt to reach all students, including those who are historically underrepresented in STEM fields. I will share some of the strategies we have used to reach these students, with examples.

Marco Molinaro

“Developing the CURE partnership to bring new opportunities to inner city high school students”

The Center for Biophotonics (CBST) in partnership with the UC Davis Cancer Center and the St. Hope Academy at Sacramento High School is developing a multi-year research intensive academy that acts as multiple high school courses. The program partners teachers, administrators, educators, researchers, clinicians and students to bring tangible opportunities to an inner city high school.

Kyle Cole

“Starting a teacher development program from scratch: Lessons from the Summer Institute for Middle School Teachers”

Although middle school is thought to be a pivotal period for engaging student interest in science, few teacher development programs target the physical sciences at this level. The Center for Probing the Nanoscale has developed a Summer Institute for Middle

School Teachers that uses large-scale nanoprobe models to connect nanoscience with the science content standards. This talk will briefly outline the process of developing a new teacher development program and cover some of the lessons learned.

Holly Pellerin

“Community of Learners”

“Everyone teaches, everyone learns” – this may be a different concept to understand, but it works for us. A simple fact is that all participants are learners as well as teachers, they all have something to share and contribute, and all take something away from the experience. The elders handle conflict management in a good way. Students are recruited based on interest and not academic merit alone. Students and teachers make the decision to continue participation or not. Oral skills, hands-on learning and building on prior learning are important components of the Community of Learners.