

## Puget Sound Region Science Education Event

# ***Strengthening High School Science Programs in Support of our Students' Future***

### **Event Overview**

Networking Forums are regional events designed to support school districts in updating their science strategic plans.

The North Sound LASER Alliance's 2009 Networking Forum will focus on high school science education. Specifically, this event will engage school district teams in discussions (based on educational research) as related to preparation for college and workforce readiness.

### **Featured Speakers** (Detailed biographies on pg. 2)

The keynote address for this Networking Forum will be provided by **Dr. David Ferrero**, a Senior Program Officer for the Bill and Melinda Gates Foundation. Dr. Ferrero's presentation will overview current and projected workforce demands in science, mathematics, engineering and technology (STEM) fields in Washington state. Correspondingly, the presentation will overview Washington state STEM education data, and ultimately offer the opportunity to juxtapose the workforce and education data.

**Dr. Robert Tai**, an associate professor of science education from the University of Virginia, will then lead school district teams through an exploration of data gathered in the FICSS study, a collaborative research project between Harvard University and the University of Virginia funded by the National Science Foundation. FICSS, or *Factors Influencing College Success in Science* was designed to identify measurable factors in high school science classes that predict different levels of achievement in introductory college science courses. This presentation will explore research studies based on the analysis of nearly 9,000 student surveys in 67 first-semester introductory college science courses at 55 randomly selected four-year colleges and universities located in 34 states. Study outcomes include high school classroom practices that have significant associations with college performance and others showing a surprising lack of association.

### **Event Details**

**Date:** Tuesday, May 26, 2009  
**Time:** 11:00a.m. to 4:00p.m. (light lunch provided)  
**Location:** Institute for Systems Biology (located on north Lake Union in Seattle)  
**Cost:** None

***Hosted by the North Sound LASER Alliance and the Center for Inquiry Science in partnership with the South Sound LASER Alliance and the Puget Sound Educational Service District.***

RSVP is required for this event. Please email Kim Klinke [kklinke@systemsbiology.org](mailto:kklinke@systemsbiology.org). If you have any additional questions, please contact Kim at (206) 732-1456.

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### Speaker Biographies

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**David J. Ferrero** is a Senior Program Officer for the Education Division of the Bill and Melinda Gates Foundation. Prior to joining the foundation in 2000, Dr. Ferrero worked as a journalist and high school teacher outside Chicago; education policy researcher for Achieve, Inc.; instructional coach for an after school enrichment program for inner city youth in Boston; and consultant to the Massachusetts Commissioner of Education on teacher quality and alternative education. More recently, he was co-editor of and contributor to *Educating Citizens: International Perspectives on Civic Values and School Choice* (Brookings Press, 2004). Other recent writing focuses on values pluralism among educators and its implications for policy and practice. His own education includes a BA in intellectual history (University of Redlands), Master's degree in American Cultural Studies (Michigan) and English (Northwestern), and a doctorate in Administration, Planning, and Social Policy (Harvard).

**Robert H. Tai** began his career in science education as a high school physics teacher in Illinois and Texas. Today, he serves as an Associate Professor of Science Education at the Curry School of Education at the University of Virginia. Dr. Tai currently teaches science education for pre-service elementary school teachers, an area he developed an interest in through his work at the College of Staten Island of the City University of New York. His current research agenda spans the range from Elementary to Post-Graduate science education with projects including large-scale survey studies of the impact of high school learning experiences as measured through student performance in introductory college science, transition from graduate student to scientist, middle-school student interest and engagement in science-related learning, and impact of youth-based out-of-school-time science and mathematics programs on students' educational trajectories. His most recent project is a study on the impact of specialized science, mathematics, and technology high schools on students' likelihood to choose science-related career fields. Dr. Tai's past work includes analysis of ethnic/racial differences in high school science education persistence, gender differences in physics education, and association of early science interest on earned baccalaureate degree concentrations. Dr. Tai's research has appeared in a number of journals including *Science*. For his work, Dr. Tai recently received the 2008 Award for Education Research Leadership from the Council of Scientific Society Presidents. Dr. Tai has also served as an editor of the *Harvard Educational Review*.

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