



NANO / BIO INTERFACE CENTER

Single Molecule Probes

Biomolecular Opto Electronics

Molecular Motions

education

societal implications

facilities

industry interactions

diversity



Diversity: what works, what doesn't work

Tracking diversity in our programs

Professional development in the Philadelphia Public School System

REU focused on the Hispanic population

Study on the effectiveness of recruitment for graduate programs

Educational Outreach

- Research Experience for Teachers
- Research Experience for Undergraduates
- Professional Development Workshops
 - FIRST LEGO League - NanoQuest
 - School District of Philadelphia
 - GSE Principals Program
- College Awareness - High School Program
 - LULAC National Education Service Center
- SEAS / GSE SPARKS! Program



NanoDay @ Penn 2006

October 25, 2006

NanoDay @ Penn gives high schools and the general public a look at Penn's nanoscale research. Over 130 high school students participated in the day's events, most visiting with their high school science classes. Local schools included Martin Luther King High School and the Microsoft School for the Future. Others included Philadelphia High School for Business & Technology, the Westtown School, and High Tech High School from New Jersey. Groups toured exhibits, demonstrations, and posters developed by graduate students and got a behind-the-scenes look at the new Nano/Bio Innovation Probe Facility, the Microfabrication Laboratory, and the Penn Regional Nanotechnology Facility.

Over twenty-five high school researchers displayed their science fair work throughout the day on Levine Hall. The day concluded with an awards program and talk by Steven Block.



Evaluating the Effectiveness of Recruitment Activities in Increasing the Diversity of the Graduate School Applicant Pool

Dawn Bonnell, Jim McGonigle, Jorge Santiago, Susan Yoon

With funding from the Provost and support of the Associate Deans

vigorously pursue directed recruitment strategies in a sustained manner and quantify the efficacy of each activity.

participate in national meetings/conferences of students from underrepresented groups, women science and technology students, and in student conferences supported by HBCU-UP network

active recruitment from a network of faculty across several campuses from the University of Puerto Rico with whom NBIC currently works

surveying these student populations to determine the factors that influence summer research and graduate school choices

Quantifying impact on applicant pools and pools of matriculated summer research and graduate departments.

Recruitment Targets

Historically Black Colleges and Universities Undergraduate Program (HBCU-UP), Annual Meeting, October 4-7, Washington, D.C.

Society for Advancement of Chicanos and Native Americans in Science (SACNAS), 2007 National Conference, October 11-14, Kansas City, Missouri

Society of Women Engineers (SWE), 2007 National Conference, October 25-27, Nashville Tennessee

Society of Hispanic Professional Engineers (SHPE), 2007 SHPE Conference, October 31 – November 4, Philadelphia, Pennsylvania

National Society of Black Engineers (NSBE), 34th Annual National Convention (2008)

Providing Role Models: Highlighting Participations / SAST/etc

Grace Hopper Lecture

In support of its educational mission of promoting the role of all engineers in society, this lecture series is intended to serve the dual purpose of recognizing successful women in engineering and of inspiring students to achieve at the highest level.



Women in Science luncheon includes graduate students and faculty participate with the 2007 presenter, Dr. Jennifer A. Lewis from UIUC



Working Together to Bring Technology to Society

As globalization influences the approaches industry takes to technical research and development, corporations and universities must find new paths toward productive relationships. On February 23, 2007, a distinguished panel of university and industry leaders assembled at the University of Pennsylvania's Nano/Bio Interface Center to discuss exciting opportunities and complex challenges around university/industry partnerships. Corporate representatives came from DuPont, IBM, and Johnson and Johnson as well as Sandia National Laboratory. Christoph Gerber of the University of Basel in Switzerland presented his view of the future of nanotechnology and opportunities these kinds of collaboration will afford. The discussion among the panelists centered on nanotechnology, biotechnology, computation, and information technology.



Universities and Industry: Working Together to Bring Technology to Society



Some Issues

How do we value those activities (ex: providing role models) that produce long term intangible outcomes?

Can we impact and quantify graduate student enrollment?

What is the role of centers vis a vis Schools/Colleges, university offices in undergraduate and graduate recruitment?

What about faculty recruitment?

Presidents' Committee on Gender Equity
NSF/Doe dept chair/manager workshops