

2008 NSF Nanoscale Science and Engineering Grantee's Conference

Day 3: Focus on Integration of Research and Education

Why Integrate Research & Education?

- Instructional content is rapidly outdated –the latest research concepts must be transferred quickly into classrooms!
- Teachers lack self-confidence and feel disconnected from the research environment – research experience can foster their deeper understanding!
- Researchers already work in an interdisciplinary mode – we can help schools become less compartmentalized
- Lack of esteem for science in our society - researchers must partner with formal and informal educators to increase science literacy in all sectors of society
- Human resource development – who will work in our labs 10 years from now? What about pressing challenges in energy, environment, health care, and economic development?

Agenda Overview

- 8:45 Panel: Global NSEE
Moderator: R.P.H. (Bob) Chang, Northwestern University
- 9:15 Panel: Best Practices of NSEC and MRSEC for advancing NSE education
Moderator: John Bradley, NSF
Participants: Education Coordinators of NSECs, MRSECs, and NNIN
- 10:00 Refreshment break
- 10:15 Keynote: "Massless and Massive Electrons in Atomically-Thin Carbon"
Michael Fuhrer, University of Maryland
- 11:15 Panel: Informal Science Education
Moderators: Larry Bell, Museum of Science and David Ucko, NSF



Agenda Overview

- 12:15 Working Lunch
Overview of the NSF Grantees Meeting on Social Dimensions
Steve Zehr and Rita Teutonico, NSF
- 1:15 Keynote: "Applying Physics Nanotechnology to Biology"
Harald Hess, Howard Hughes Medical Institute
- 2:15 Centers on Environmental Implications of Nanotechnology
Moderators: Alan Tessier, NSF and Nora Savage, EPA
- 3:00 NSE in IGERT, REU Programs, and Centers for Learning
Moderator: Mike Roco, NSF
- 4:00 Closing remarks