Facilities for Nanotechnology at the University of Pennsylvania
A Workshop Sponsored by the Nanotechnology Institute, the Laboratory for Research on the Structure of Matter, and the University of Pennsylvania

The Auditorium, LRSM Building, 3231 Walnut St, Philadelphia, PA 19104-6272
Tuesday, January 8, 2013

8:50-9:10	**Registration** LRSM Reading Room
9:10-9:30	**Welcome & Overview** *Karen Winey*, Professor of Materials Science and Engineering, Penn
9:30 – 10:30	**Examples of Research and Analysis from Penn Facilities** **Nanoparticles and Polymer Nanocomposites** *Russell Composto,* Professor, Materials Science and Engineering, Penn **Failure Analysis** *William Kane*, Senior Engineer, Exponent **Fabrication of Electrical and Optical Devices** *Cherie Kagan*, Professor, Electrical and Systems Engineering, Penn
10:30 – 10:50	**Break & Discussions** LRSM Reading Room
10:50 – 12:00	**Description of Penn Facilities** **Wolf Nanofabrication Facility (current)** **Nanofabrication Facility (opening 2013)** *Kevin Turner,* Associate Professor, Mechanical Engineering and Applied Mechanics, Penn, and Faculty Director of the Wolf Nanofabrication Facility **Penn Regional Nanotechnology Facility (current)** **Nanoscale Characterization Facility (opening in 2013)** *Doug Yates***,** Director, Penn Regional Nanotechnology Facility **The Nano/Bio Interface Center Probe Facility** **NBIC Scanning and Local Probe Facility (opening 2013)** *Matthew Brukman*, Facilities Manager, Nano/Bio Interface Center
12:00 – 12:10	**Working with Penn Facilities** *Kate Stebe*, Professor, Chemical and Biomolecular Engineering and Deputy Dean for Research, School of Engineering and Applied Science, Penn

12:10 – 1:00	**Lunch & Discussions** LRSM Reading Room
1:00 – 2:20	**Tour of Facilities and Singh Nanotechnology Center** Attendees will be divided into 4 groups. Each group will have a guide and rotate through the four locations. **#1 - Singh Nanotechnology Building:** The three facilities described above will move into this phenomenal new building during 2013. Enjoy this preview! *Ira Winston*, Chief Infrastructure Officer for the School of Engineering and Applied Science, Penn **#2 - FEI Quanta SEM:** SEM with numerous *in situ* capabilities including mechanical testing, exposure to partial pressures of water, electrical measurements. Equipped with numerous detectors, including STEM, to learn the most about the structure and composition of samples. *Jamie Ford*, Staff Scientist, Penn Regional Nanotechnology Facility **#3 - JEOL 2010F:** TEM and STEM capable of high resolution imaging of a wide range of materials, as well as chemical analysis at the nanoscale. *Doug Yates*, Director, Penn Regional Nanotechnology Facility **#4 – Scanning Probe Facility:** AFMs, confocal Raman microscope, and broadband electrical probe station for imaging and characterization of nanoscale features, materials, and devices in ambient, vacuum, and fluid environments. *Matt Brukman***,** Research Associate, Nano/Bio Interface Center Probe Facility
2:20 – 2:45	**Break & Discussions** LRSM Reading Room
2:45 – 3:00	**Introduction to the Nanotechnology Institute** Anthony Green, Vice President of Technology Commercialization: Life Sciences, Ben Franklin Technology Partners of Southeastern Pennsylvania
3:00 – 3:45	**Partner Facilities in PA RapidNanoNet™** **Centralized Research Facilities, Drexel University** *Jonathan Spanier*, Associate Professor, Materials Science and Engineering and Associate Dean, College of Engineering, Drexel University **Center for Advanced Materials and Nanotechnology, Lehigh University** *Gene A. Lucadamo*, Industry Liaison, Lehigh University
3:45	**Closing Remarks**
4:00	**Networking and Departure**