

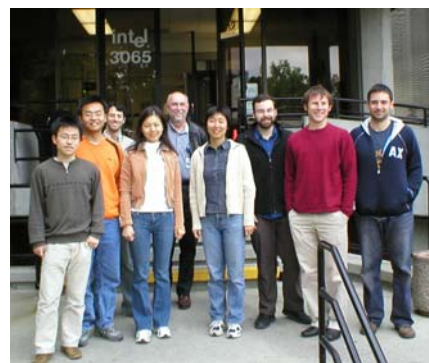
**CPN Graduate Fellows Visit Intel Research Labs
NSF NSEC Grant PHY-0425897**

**Director: Kathryn Moler, Deputy Director: David Goldhaber-Gordon
Associate Director: Kyle Cole
Center for Probing the Nanoscale, Stanford CA**

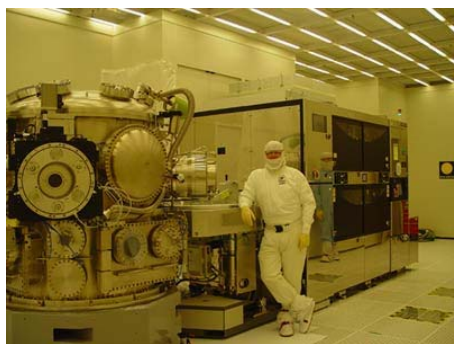


The Center for Probing the Nanoscale (CPN) is an NSF-funded collaborative effort between Stanford University and IBM that focuses on developing novel tools to map electronic, magnetic, mechanical, and other material properties at the nanoscale. In addition to performing cutting-edge research, the CPN is dedicated to providing CPN Graduate Fellows a rich and diverse educational experience to help them make informed career decisions.

The number of employment opportunities in nanoscale science and related fields is expected to increase dramatically in the next decade.¹ The rapid economic growth of nanotechnology, combined with the high concentration of technology companies in Silicon Valley, provides CPN Fellows a unique opportunity to experience dynamic industrial research. Through CPN-sponsored *Field Trips to Industry*, Fellows experience the research environment of local hi-tech companies and receive tours of their labs. This mutually beneficial program allows Fellows to connect with commercial research scientists and provides industrial partners a chance to network with some of the top young scientists in the country.



Mike Garner (center) leads CPN Graduate Fellows on a tour of Intel research labs.



Extreme-ultraviolet (EUV) lithography uses light with a wavelength of only 13.5 nm, versus the 193 nm light of today, allowing smaller features. (Image from: <http://www.intel.com/technology/silicon/si08041.htm>)

On April 25th 2006 CPN Graduate Fellows visited the semiconductor giant Intel in Santa Clara, CA. Mike Garner, Intel Manager of External Materials Research and Technology Strategy, arranged for students to tour the Material Characterization labs, Biometrics labs and the new Extreme Ultraviolet (EUV) facility. Students were able to see several devices under development including a Raman spectroscopic bio-analyzer system, a peristaltic microfluidics device as well as EUV lithographic instruments. In addition, students enjoyed meeting Intel scientists in an informal setting to talk about their experiences working in industry.

Reference:[1] Nanoscale Science and Engineering: Unifying and Transforming Tools, M.C. Roco, AICHE Journal 50(5) 890-897 (2004).

