

NANO HIGHLIGHT

Developing Digital Resources for Education

NSF NSEC Grant 0425780

PI: Dawn Bonnell

University of Pennsylvania

The Nano/Bio Interface Center (NBIC) at the University of Pennsylvania is creating a wide array of images and animations to be used by teachers and students alike. Participant evaluations from programs like *Research Experience Teachers* indicate that these types of resources are needed by teachers to help them inspire high school students and pique their interests in nanoscale science and engineering. Graduate students from across the campus contribute the digital resources for use in a variety of outreach events. One event is NanoDay @ Penn, an annual, open house where local high schools and the general public are invited to participate. As part of the event, a multimedia show is projected in the public spaces at various locations where NanoDay events take place, allowing visitors and students to learn about research, current events, and economic impact of nanobiotechnology.

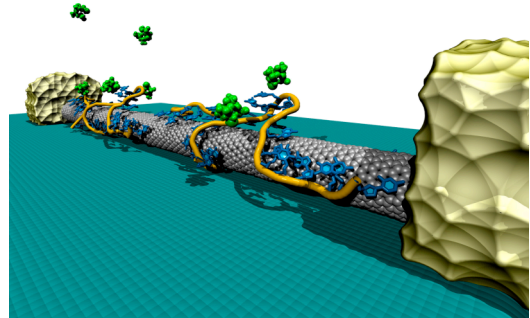


fig 1: A carbon nanotube covered in DNA for use as a biosensor. (image by Robert Johnson, Physics)

Numerous contributions from graduate students included still images from their research, instructional presentations, and unique animations of nanoscale phenomena. The entire collection of images and animations will be accessible online (www.nanotech.upenn.edu) as well as on CD for teachers to take into the classroom.

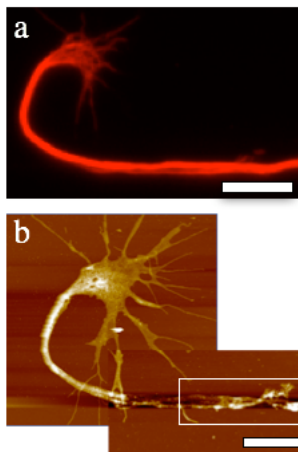


fig. 2: Atomic force microscopy reveals details of a neuron (b) that are not visible using fluorescence light microscopy (a). (image by Andre Brown, Physics)