

## **NATIONAL NANOTECHNOLOGY INITIATIVE (NNI) CENTERS, NETWORKS, AND FACILITIES**

Centers and networks provide opportunities and support for multidisciplinary research among investigators from a variety of disciplines and from different research sectors, including academia, industry and government laboratories. Such multidisciplinary research not only leads to advances in knowledge, but also fosters relationships that enhance the transition of basic research results to devices and other applications. The multidisciplinary centers are listed below, organized by funding agency.

### **NATIONAL SCIENCE FOUNDATION**

#### **Engineering Research Center**

*Center for Extreme Ultraviolet Science and Technology*, University of Colorado–Boulder  
(<http://euverc.colostate.edu/>)

#### **Science and Technology Center**

*Nanobiotechnology Center*, Cornell University (<http://www.nbtc.cornell.edu/>)

#### **Nanoscale Science and Engineering Centers**

*Center for Hierarchical Manufacturing*, University of Massachusetts–Amherst  
(<http://www.umass.edu/chm/>)

*Center for Nanoscale Systems (NSEC)*, Cornell University (<http://www.cns.cornell.edu/>)

*Science of Nanoscale Systems and their Device Applications (NSEC)*, Harvard University  
(<http://www.nsec.harvard.edu/>)

*Center for Biological and Environmental Nanotechnology*, Rice University  
(<http://www.ruf.rice.edu/~cben/>)

*Center for Integrated Nanopatterning and Detection (NSEC)*, Northwestern University  
(<http://www.nsec.northwestern.edu/>)

*Center for Electronic Transport in Molecular Nanostructures (NSEC)*, Columbia University  
(<http://www.cise.columbia.edu/nsec/>)

*Center for Directed Assembly of Nanostructures (NSEC)*, Rensselaer Polytechnic Institute  
(<http://www.rpi.edu/dept/nsec/>)

*Center for Scalable and Integrated Nano-Manufacturing (NSEC)*, University of California–Los Angeles (<http://newsroom.ucla.edu/page.asp?id=4601>)

*Center for Chemical-Electrical-Mechanical Manufacturing Systems (NSEC)*, University of Illinois, Urbana–Champaign (<http://www.nano-chemms.uiuc.edu/>)

*Center on Templated Synthesis and Assembly at the Nanoscale*, University of Wisconsin  
(<http://www.nsec.wisc.edu/>)

*Center for Probing the Nanoscale*, Stanford University (<http://www.stanford.edu/group/cpn/>)

*Center for Affordable Nanoengineering of Polymeric Biomedical Devices*, Ohio State University  
(<http://www.nsec.ohio-state.edu/>)

*Center of Integrated Nanomechanical Systems*, University of California–Berkeley  
(<http://nano.berkeley.edu/coins/>)

*Nano-Bio Interface Center*, University of Pennsylvania (<http://www.nanotech.upenn.edu/>)

*Center for High Rate Nanomanufacturing*, Northeastern University (<http://www.nano.neu.edu/>)

### **Materials Research Science and Engineering Centers**

These four MRSECs are fully dedicated to nanotechnology research:

*Center for Nanoscale Science (MRSEC)*, Pennsylvania State University  
(<http://www.mrsec.psu.edu/>)

*Center for Quantum and Spin Phenomena in Nanomagnetic Structures (MRSEC)*, University of Nebraska, Lincoln (<http://www.mrsec.unl.edu/>)

*Center for Research on Interface Structure and Phenomena (MRSEC)*, Yale University  
([http://www.crisp.yale.edu/index.php/Main\\_Page](http://www.crisp.yale.edu/index.php/Main_Page))

*Genetically Engineered Materials (MRSEC)*, University of Washington  
(<http://www.mrsec.org/centers/university-washington>)

In addition, many other MRSECs have one or more interdisciplinary research group(s) focused on nanoscale science and engineering topics. See <http://www.mrsec.org/> for more information.

### **NSF Nanoscale Science and Engineering Networks**

*Network for Computational Nanotechnology* (<http://www.ncn.purdue.edu/>)

*National Nanotechnology Infrastructure Network* (<http://www.nnin.org/>)

*Oklahoma Network for Nanostructured Materials* (<http://www.okeyscores.org/default.asp>)

*Nanoscale Informal Science Education Network* (<http://www.nisenet.org/>)

*Network for Nanotechnology in Society*, Arizona State University–University of California–Santa Barbara (<http://cns.asu.edu/resources/nsf.htm>)

*Experimental Program to Stimulate Competitive Research*, University of New Mexico  
(<http://www.nmepscor.org/>)

### **Centers for Learning and Teaching**

*National Center for Learning & Teaching in Nanoscale Science & Engineering*  
(<http://www.nclt.us/>)

*NSF's directory of R&D Centers* (<http://www.nsf.gov/about/partners/centers.jsp>)

## **NATIONAL SCIENCE FOUNDATION WITH THE ENVIRONMENTAL PROTECTION AGENCY**

### **Centers for Environmental Implications of Nanotechnology**

*University of California–Los Angeles* (<http://cein.cnsi.ucla.edu/pages/>)

*Duke University* (<http://www.ceint.duke.edu/>)

**DEPARTMENT OF ENERGY****Nanoscale Science Research Centers**

*Center for Nanoscale Materials*, Argonne National Laboratory (<http://nano.anl.gov/>)

*Molecular Foundry*, Lawrence Berkeley National Laboratory (<http://foundry.lbl.gov/>)

*Center for Integrated Nanotechnologies*, Sandia and Los Alamos National Laboratory (<http://cint.lanl.gov/>)

*Center for Functional Nanomaterials*, Brookhaven National Laboratory (<http://www.bnl.gov/cfn/>)

*Center for Nanophase Materials Science*, Oak Ridge National Laboratory (<http://www.cnms.ornl.gov/>)

**DEPARTMENT OF DEFENSE**

*Institute for Soldier Nanotechnologies*, Massachusetts Institute of Technology (<http://web.mit.edu/isn/>)

*Center for Nanoscience Innovation for Defense*, University of California–Santa Barbara, Riverside and Los Angeles (<http://www.instadv.ucsb.edu/93106/2003/January21/new.html>)

*Institute for Nanoscience*, Naval Research Laboratory (<http://www.nrl.navy.mil/content.php?P=MULTIDISCIPLINE>)

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)****University Research, Engineering, and Technology Institutes (NASA funding now discontinued)**

*Institute for Intelligent Bio-Nanomaterials & Structures for Aerospace Vehicles*, Texas A&M University (<http://tiims.tamu.edu/>)

*Biologically Inspired Materials Institute (BIMat)*, Princeton University (<http://bimat.princeton.edu/html/overview.html>)

**NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH**

*Nanotechnology Research Center*, Robert A. Taft Lab (<http://www.cdc.gov/niosh/topics/nanotech/>)

**NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY**

*Center for Nanoscale Science and Technology*, NIST Gaithersburg (<http://www.cnst.nist.gov/>)

**NATIONAL INSTITUTES OF HEALTH**

*Nanotechnology Characterization Laboratory*, NCI-Frederick (<http://ncl.cancer.gov/>)

**NHLBI Program of Excellence in Nanotechnology**

*Integrated Nanosystems for Diagnosis and Therapy*, Washington University (<http://www.nhlbi-pen.info/>)

*Nanotechnology: Detection & Analysis of Plaque Formation*, Emory University Georgia Tech (<http://pen.bme.gatech.edu/>)

*Nanotherapy for Vulnerable Plaque*, Burnham Institute (<http://www.pennvp.org/>)

*Translational Program of Excellence in Nanotechnology*, Massachusetts General Hospital  
(<http://cmir.mgh.harvard.edu/nano/tpen>)

### **Nanomedicine Development Centers**

*Center for the Optical Control of Biological Functions*, University of California–Berkeley  
(<http://nihroadmap.nih.gov/nanomedicine/fundedresearch.asp>)

*Center for Cell Control*, University of California–Los Angeles (<http://ccc.seas.ucla.edu/>)

*Phi2 DNA*, Purdue University (<http://www.vet.purdue.edu/PeixuanGuo/NDC/>)

*Nanomedicine Center for Nucleoprotein Machines*, Georgia Institute of Technology  
(<http://www.nucleoproteinmachines.org/>)

*National Center for Design of Biomimetic Nanoconductors*, University of Illinois–Urbana–Champaign (<http://www.nanoconductor.org/>)

*Center for Protein Folding Machinery*, Baylor University (<http://proteinfoldingcenter.org/>)

*Nanomedicine Center for Mechanobiology*, Columbia University  
(<http://www.mechanicalbiology.org/>)

*Engineering Cellular Control: Synthetic Signaling and Motility Systems*, University of California–San Francisco (<http://qb3.org/cpl/>)

### **Centers of Cancer Nanotechnology Excellence**

*The Siteman Center of Cancer Nanotechnology Excellence*, Washington University  
(<http://www.siteman.wustl.edu/>)

*Center of Nanotechnology for Treatment, Understanding, and Monitoring of Cancer (NANOTUMOR)*, University of California, San Diego (<http://ntc-ccne.org/>)

*Carolina Center of Cancer Nanotechnology Excellence*, University of North Carolina  
(<http://cancer.med.unc.edu/ccne/>)

*Center for Cancer Nanotechnology Excellence Focused on Therapy Response*, Stanford University  
(<http://mips.stanford.edu/public/grants/ccne/>)

*MIT-Harvard Center of Cancer Nanotechnology Excellence*, Massachusetts Institute of Technology (<http://nano.cancer.gov/action/programs/mit/>)

*Nanotechnology Center for Personalized and Predictive Oncology*, Emory University Georgia Institute of Technology (<http://www.wcigtccne.org/>)

*Center for Cancer Nanotechnology Excellence*, Northwestern University  
(<http://www.ccne.northwestern.edu/>)

*Nanosystems Biology Cancer Center*, California Institute of Technology  
(<http://www.caltechcancer.org/>)

