

About Brookhaven National Laboratory

Purpose

Produce excellent science in a safe, environmentally sound manner with the cooperation, support, and appropriate involvement of the Laboratory's many communities.

Location

Upton, New York (on Long Island)

Funding

\$510 million for fiscal year 2007, primarily from the U.S. Department of Energy (DOE), distributed as follows:

- Science: \$360M
- Environmental management: \$31M
- National security: \$36M
- Energy and other: \$17M

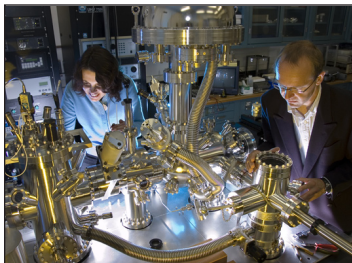
Plus \$66M from other agencies

Management

Brookhaven Lab is operated and managed for DOE's Office of Science by Brookhaven Science Associates, a limited-liability company founded by the Research Foundation of the State University of New York on behalf of Stony Brook University, the largest academic user of the Lab's facilities, and Battelle, a nonprofit, applied science and technology organization.

Staff

About 2,600 scientists, engineers, technicians and support staff; more than 5,000 guest researchers annually.



Each year, some 5,000 scientists from around the world visit Brookhaven to use the Lab's unique research facilities.

Established in 1947, Brookhaven National Laboratory is a multi-disciplinary research institution operated by Brookhaven Science Associates for the U.S. Department of Energy (DOE). Home to six Nobel-Prize-winning discoveries, Brookhaven supports DOE's strategic missions in carrying

out basic and applied research at the frontiers of science. Additionally, the Lab:

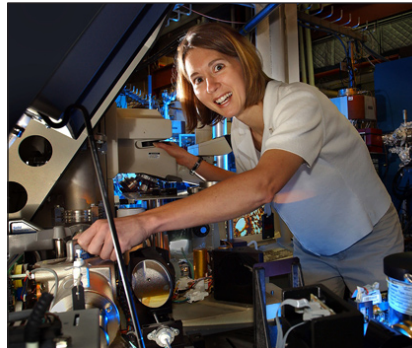
- Conceives, constructs and operates complex, leading-edge, user-oriented research facilities
- Develops advanced technologies that address national needs and initiates their transfer to other organizations and to the commercial sector
- Disseminates technical knowledge to educate future generations of scientists and engineers
- Maintains technical currency in the nation's workforce and encourages scientific awareness in the general public.

Key Programs

- Nuclear and high-energy physics
- Physics and chemistry of materials
- Nanoscience
- Energy and environmental research
- National security and nonproliferation
- Neurosciences and medical imaging
- Structural biology
- Computational sciences

Major Facilities

- Relativistic Heavy Ion Collider (RHIC), a particle accelerator dedicated to studying the fundamental forces and properties of matter
- Center for Functional Nanomaterials, a hub for cutting-edge studies of materials and properties on the order of billionths of a meter aimed at addressing our



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national challenges in energy

- National Synchrotron Light Source (NSLS), a source of intense x-ray, infrared, and ultraviolet light that attracts researchers from around the world
- NSLS-II, a planned successor to NSLS with 10,000 times the brightness
- Alternating Gradient

Synchrotron, home of three Nobel Prizes and many pivotal discoveries in high-energy and nuclear physics

- NASA Space Radiation Laboratory, for studying the effects of simulated cosmic rays, as might be encountered by future astronauts
- Accelerator Test Facility, the nation's proving ground for new concepts in generating, accelerating, and monitoring particle beams
- Center for Translational Neuroimaging, a suite of tools to investigate the neurological underpinnings of conditions such as addiction, obesity, and aging

Significant Discoveries

- Six Nobel Prizes, including 2002 in physics and 2003 in chemistry
- Evidence that matter existed as a "perfect" liquid in the early universe
- L-dopa for Parkinson's disease
- First synthesis of human insulin
- Researching pollution-eating bacteria
- Brain-scan studies of addiction, mental illness, and aging
- Advances in understanding high-temperature superconductors
- Energy technology studies
- Technetium-99m, used to diagnose heart disease and other ailments in 11 million people annually
- Advanced coatings for corrosion prevention
- Magnetically levitated trains (Maglev)