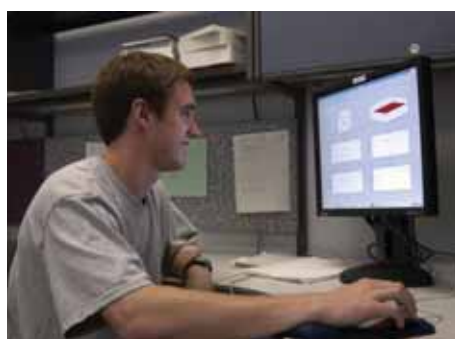


## AMES LABORATORY Ames, Iowa



Scientists at the Department of Energy Office of Science's Ames Laboratory seek solutions to energy-related problems through the exploration of chemical, engineering, materials and mathematical sciences, and physics.

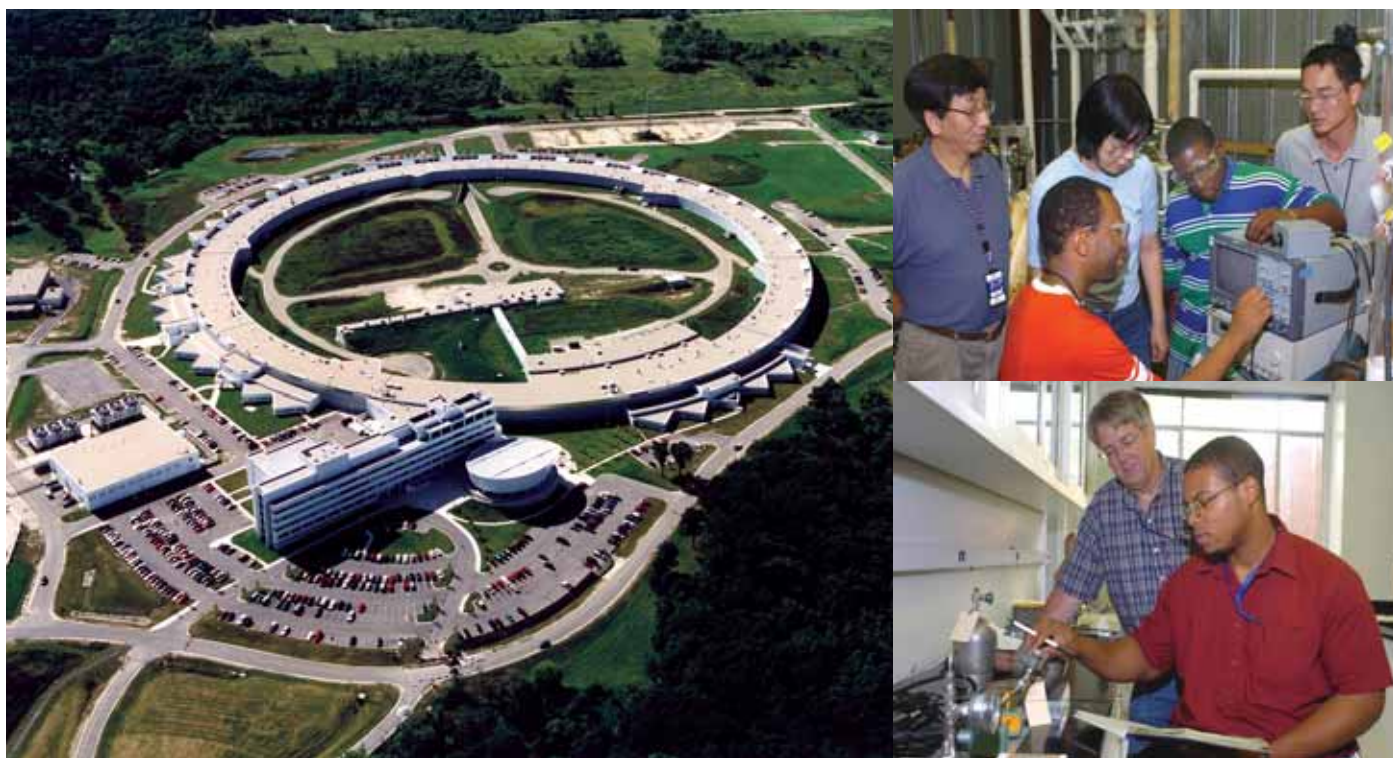
Established in the 1940s with the successful development of the most efficient process to produce high-purity uranium metal for atomic energy, Ames Lab now pursues much broader priorities than the materials research that has given the Lab international credibility.

Responding to issues of national concern, Lab scientists are actively involved in innovative research, science education programs, the development of applied technologies, and the quick transfer of such technologies to industry. Uniquely integrated within a university environment, the Lab stimulates creative thought and encourages scientific discovery, providing solutions to complex problems and educating tomorrow's scientific talent.

Ames Laboratory is located in Ames, Iowa, on the campus of Iowa State University. Iowa State's 2,000-acre, park-like campus is home to more than 25,000 students. Ames is approximately 30 minutes north of Des Moines, Iowa's capital city.



## ARGONNE NATIONAL LABORATORY Argonne, Illinois



Argonne National Laboratory descends from the University of Chicago's Metallurgical Laboratory, part of the World War Two Manhattan Project. The laboratory has about 2,900 employees, including about 1,000 scientists and engineers. Argonne occupies 1,500 wooded acres in DuPage County, Illinois, about 25 miles southwest of Chicago's Loop. Argonne research falls into broad categories:

- Basic science seeks solutions to a wide variety of scientific challenges. This includes experimental and theoretical work in biology, chemistry, high energy and nuclear physics, materials science, and mathematics and computer science.
- Scientific facilities help advance America's scientific leadership and prepare the nation for the future. These facilities are used by scientists thousands of scientists and students from the U.S. and abroad. The laboratory is also home to the Advanced Photon Source, the Center for Nanoscale Materials, the Intense Pulsed Neutron Source, and the Argonne Tandem Linear Accelerator System.
- Energy resources programs help insure a reliable supply of efficient and clean energy for the future. Argonne scientists and engineers are developing advanced batteries and fuel cells, as well as advanced electric power generation and storage systems.
- Environmental management includes work on managing and solving the nation's environmental problems and promoting environmental stewardship.
- National Security has increased in significance in recent years for the nation and for Argonne research. Argonne capabilities developed over the years for other purposes are helping to counter the threats of terrorism.

Argonne's Division of Educational Programs provides workforce development for faculty and students from universities to regional K-12 schools.



## BROOKHAVEN NATIONAL LABORATORY Upton, New York

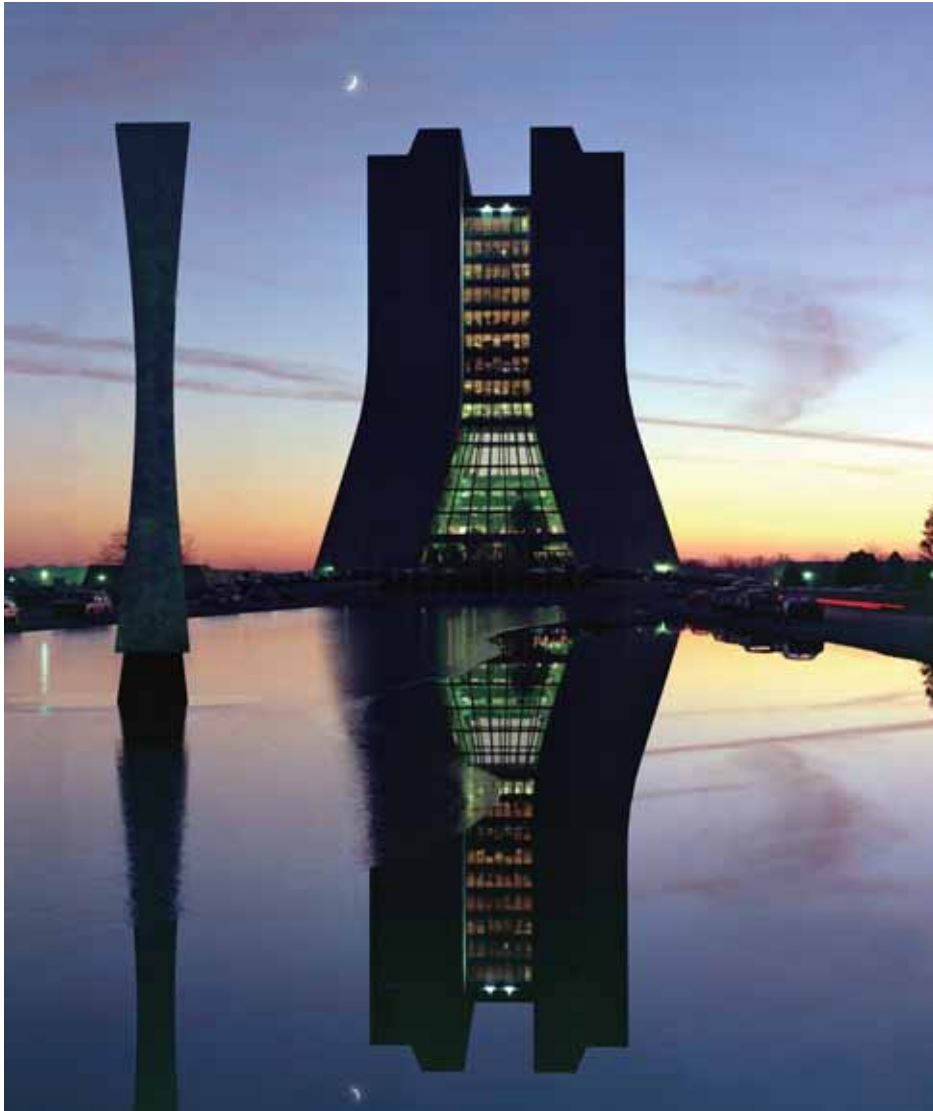


Established in 1947, Brookhaven National Laboratory is a Department of Energy, Office of Science multidisciplinary laboratory managed by Brookhaven Science Associates, a company founded by Battelle and Stony Brook University. Home to six Nobel Prizes, Brookhaven conducts research in the physical, biomedical, and environmental sciences, as well as in energy technologies and national security.

Located on a 5,300-acre site on eastern Long Island, New York, Brookhaven builds and operates major scientific facilities available to university, industry and government researchers. Among those facilities are the world's newest accelerator for nuclear physics research, the Relativistic Heavy Ion Collider (RHIC), and the National Synchrotron Light Source (pictured here) where approximately 2,500 researchers use beams of light, from x-rays to ultraviolet and infrared, to study materials as diverse as computer chips and proteins. In the near future, the Center for Functional Nanomaterials will be built at Brookhaven, one of five Department of Energy centers where researchers will study materials on the scale of a billionth of a meter, or only a few atoms.

A wide variety of both basic and applied research is conducted at Brookhaven. For instance, scientists are investigating the building blocks of matter using RHIC, the roots of drug addiction and brain metabolism using positron emission tomography, the effects of space radiation on astronauts using the newly built NASA Space Radiation Laboratory, and the effects of increased carbon dioxide in ecosystems. Brookhaven researchers also develop new technologies as varied as detectors for national security and oil burners with improved efficiency.

## FERMI NATIONAL ACCELERATOR LABORATORY Batavia, Illinois

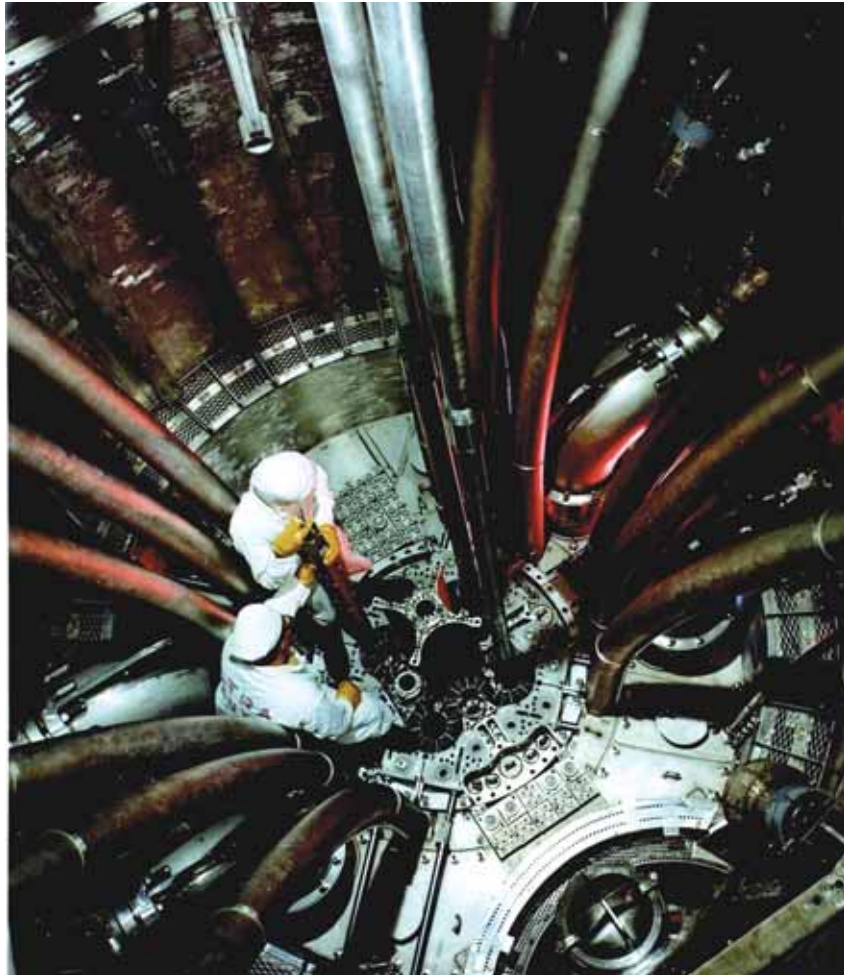


Fermi National Accelerator Laboratory (Fermilab) is one of the world's foremost laboratories dedicated to high-energy physics research. It is operated for the Department of Energy Office of Science by a consortium of 90 research-oriented universities. More than 3,000 scientists from around the world use Fermilab for their experiments.

Fermilab is located on a 6,800-acre site about 35 miles west of Chicago, Illinois. The laboratory is home to the Tevatron Collider, the world's highest-energy particle accelerator. Two large detectors analyze the Tevatron's proton-antiproton collisions to unveil the fundamental forces and particles of the universe. Scientists at Fermilab discovered the bottom quark and the top quark, and first observed the tau neutrino.

Fermilab operates the world's most powerful proton beam for creating neutrinos. The Center for Particle Astrophysics at Fermilab includes groups studying cosmic rays, supernovae, dark energy and other phenomena.

## IDAHO NATIONAL LABORATORY Idaho Falls, Idaho



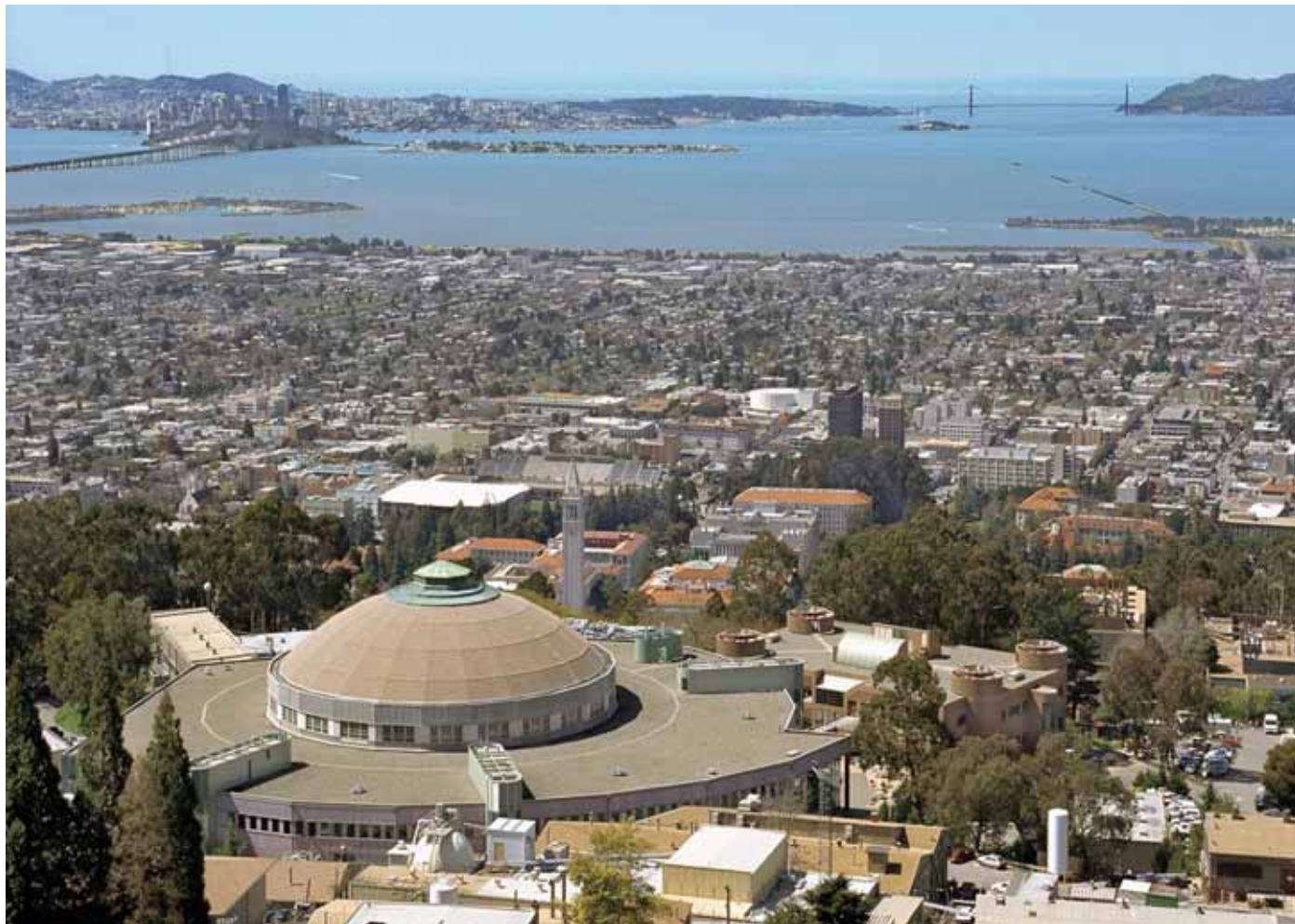
In operation since 1949, The Idaho National Laboratory (INL) is a science-based, applied engineering National Laboratory dedicated to supporting the U.S. Department of Energy's missions in nuclear and energy research, science, and national defense.

INL stands out as a unique national and international resource. Notably, the Lab has been formally designated as the nation's command center for advanced civilian nuclear technology research and development, and is home to the unparalleled Critical Infrastructure Test Range, with assets as diverse as an isolable electric grid and wireless test bed. Leveraging these and numerous other distinguishing features, the Lab and its more than 3,300 scientists, engineers and support personnel build on the potential and promise of the theoretical for the benefit of the real world.

Located in southeast Idaho, INL covers 890 square miles of the Snake River Plain between Idaho Falls and Arco, Idaho. Offices and laboratories are also in the city of Idaho Falls (population 50,000), located about two hours from Grand Teton and Yellowstone national parks and other areas offering prime recreational opportunities.



## LAWRENCE BERKELEY NATIONAL LABORATORY Berkeley, California



Lawrence Berkeley National Laboratory's research and development includes new energy technologies and environmental solutions with a focus on energy efficiency, electric reliability, carbon management and global climate change, and fusion. Frontier research experiences exist in nanoscience, genomics and cancer research, advanced computing, and observing matter and energy at the most fundamental level in the universe.

Ernest Orlando Lawrence founded the Berkeley Lab in 1931. Lawrence is most commonly known for his invention of the cyclotron, which led to a Golden Age of particle physics—the foundation of modern nuclear science—and revolutionary discoveries about the nature of the universe. Berkeley Lab's Advanced Light Source is its premier national user facility centrally located on the lab site overlooking the San Francisco Bay.



## LAWRENCE LIVERMORE NATIONAL LABORATORY Livermore, California



Lawrence Livermore National Laboratory (LLNL) is a premier applied science laboratory that is part of the National Nuclear Security Administration (NNSA) within the Department of Energy. With more than 8,000 employees, LLNL is located on a one-square-mile site in Livermore, California. A larger (10 square miles) remote explosives testing site (Site 300) is situated 18 miles to the east.

LLNL is managed by the University of California (UC) for the National Nuclear Security Administration. Being part of the University helps foster intellectual innovation and scientific excellence. This University connection allows LLNL to recruit and retain a diverse world-class workforce and partner with the UC's extensive research and academic community. These factors are essential to sustaining the laboratory's scientific and technical excellence.

Lawrence Livermore National Laboratory is a national security laboratory with responsibility for ensuring that the nation's nuclear weapons remain safe, secure, and reliable. LLNL also applies its special expertise and multidisciplinary capabilities to prevent the spread and use of nuclear and other weapons of mass destruction and strengthen homeland security.

The Lab has pioneered the application of many technologies, from high-performance computers to advanced lasers, to meet national security needs. Today, the special capabilities developed for our stockpile stewardship and nonproliferation activities enable us to also meet enduring national needs in conventional defense, energy, environment, biosciences, and basic science. Research programs in these areas enhance the competencies needed for the Laboratory's national security mission.



## LOS ALAMOS NATIONAL LABORATORY Los Alamos, New Mexico



The Los Alamos National Laboratory (LANL), located in the Jemez Mountains of northern New Mexico, offers the opportunity for students to work at a multi-disciplinary, world-class research facility while enjoying a truly unique environment. Long known for its artistic community, northern New Mexico also offers a variety of exciting outdoor recreational opportunities, including rock climbing and hiking in the adjacent mountains and canyons, proximity to the Rocky Mountains, and exceptional skiing opportunities at many nearby locations.

We offer a diverse research experience for undergraduate and graduate students as a means of assuring the continued vibrancy of the science, engineering, and technology at the laboratory. Serve your internship with us and you will have the opportunity to work in a team environment with some of the world's top scientists and engineers on critical issues involving our national security, environment, infrastructure, and security. We offer internship opportunities in areas that include: Biology, Chemistry, Computer Science, Physics, Mathematics, Materials Science, Environmental Science, and Engineering: Chemical, Civil, Computer, Electrical, Mechanical, Nuclear, and Software.

If you are a problem solver and independent thinker, a team player, a good communicator, like a hands-on approach, and are self-motivated, we offer you the challenge of an internship at Los Alamos National Laboratory.



## NATIONAL RENEWABLE ENERGY LABORATORY Golden, Colorado



The National Renewable Energy Laboratory (NREL) is the Department of Energy's primary National Laboratory for renewable energy and energy efficiency research and development. From harvesting energy from the sun and wind, to advancing automotive systems, to developing biodegradable plastics from corn stalks, NREL develops renewable energy and energy efficiency technologies and practices, advances related science and engineering, and transfers knowledge and innovations to address the nation's energy and environmental goals. NREL is home to three national centers of excellence: the National Center for Photovoltaics, the National Bioenergy Center and the National Wind Technology Center.

NREL research has been recognized with 39 R&D 100 Awards, ranking first among National Laboratories per researcher, as well as numerous honors from *R&D*, *Discover*, and *Popular Science* magazines and leading scientific organizations.

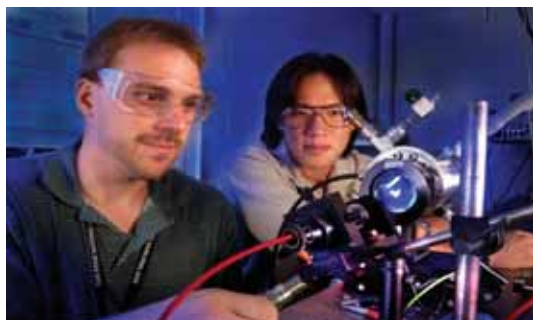
Innovative, challenging and dynamic—that's our culture. If you are interested in a research internship with an institution that believes creativity and individual uniqueness are at the core of our success, then explore your options at: [www.nrel.gov](http://www.nrel.gov). We value intern talent that adds to the rich pool of research findings produced by NREL each year. Intern accomplishments include:

- More than 24 students have been selected by the Office of Science to present major NREL research at the AAAS.
- More than 50 past student interns have been hired on to join the NREL family.
- Teacher researchers have produced over 50 renewable energy lessons for the classroom.
- NREL's Office of Education partners with over 75 universities throughout the nation.



NREL's main 327-acre site is in Golden, Colorado, just west of Denver. The Laboratory also operates the National Wind Technology Center on 307 acres about 20 miles north of Golden, adjacent to the Department of Energy's Rocky Flats Environmental Test Site. We are an equal opportunity employer committed to diversity.

## OAK RIDGE NATIONAL LABORATORY Oak Ridge, Tennessee



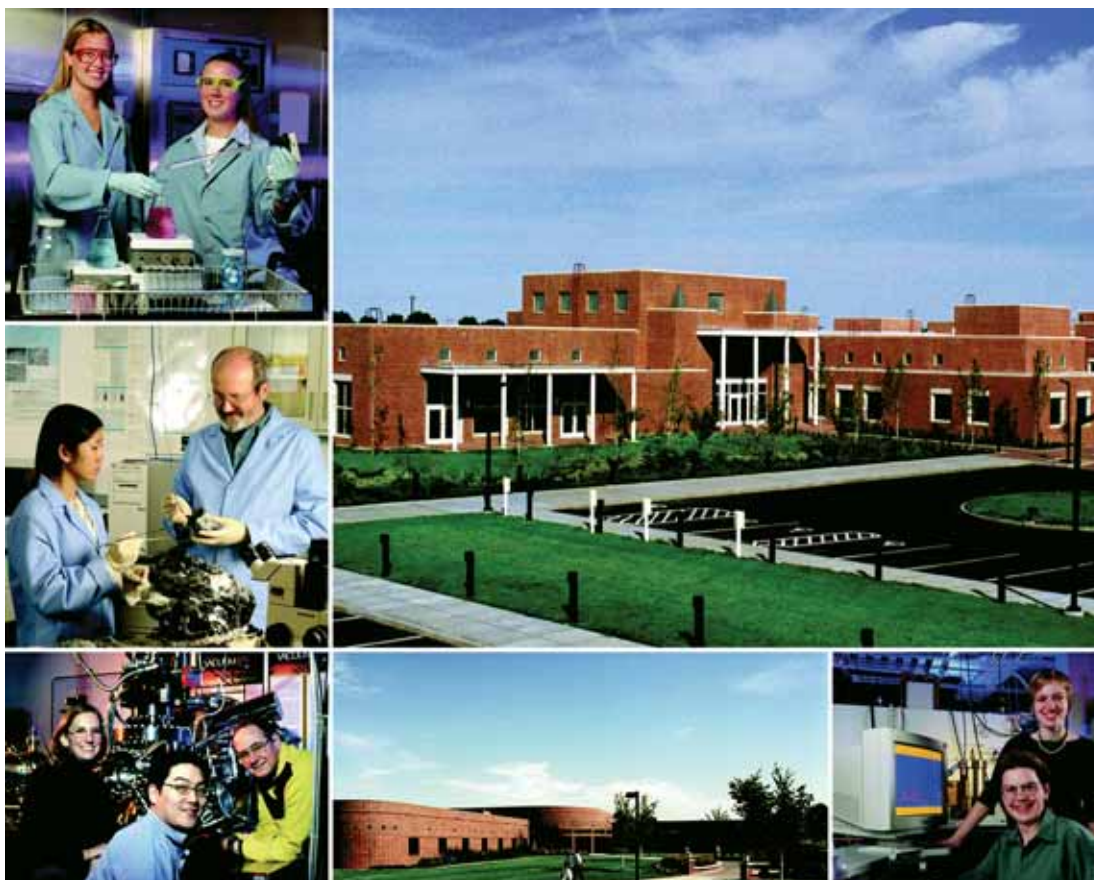
Oak Ridge National Laboratory is the Department of Energy's largest science and energy laboratory. Managed since April 2000 by a partnership of the University of Tennessee (UT) and Battelle, ORNL was established in 1943 as a part of the secret Manhattan Project to pioneer a method for producing and separating plutonium. More than 60 years later, ORNL's mission is to conduct basic and applied research that provides innovative solutions to complex problems.

ORNL, with funding that exceeds \$1 billion, has a staff of more than 4,000 and approximately 3,000 guest researchers who spend two weeks or longer each year in Oak Ridge. The Laboratory's six major scientific competencies, in support of DOE's Office of Science, include neutron science, energy, high performance computing, complex biological systems, advanced materials and national security.

ORNL is in the final stages of a \$300 million project to provide a modern campus for the next generation of great science. A unique combination of federal, state and private funds is building 13 new facilities. Included in these new facilities will be the Functional Genomics Center, the Center for Nanophase Materials Science, the Advanced Microscopy Laboratory, and the joint institutes for Computational Science, Biological Science and Neutron Science. ORNL is the site of the Office of Science's National Leadership Computing Facility for unclassified high-performance computing. On budget and on schedule 2006, the \$1.4 billion Spallation Neutron Source makes Oak Ridge the world's foremost center for neutron science research.

UT-Battelle has provided more than \$6 million in support of math and science education, economic development and other projects in the greater Oak Ridge region.

## PACIFIC NORTHWEST NATIONAL LABORATORY Richland, Washington



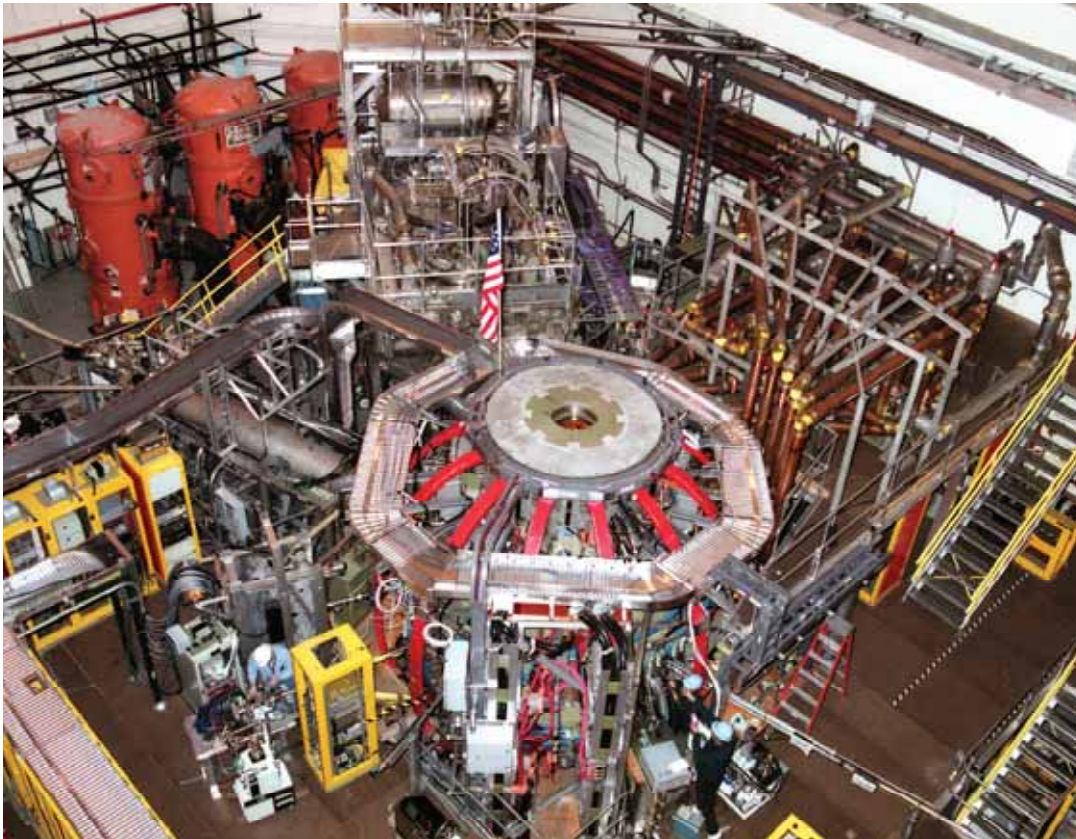
Pacific Northwest National Laboratory (PNNL) is a multi-purpose National Laboratory dedicated to delivering innovative science-based solutions to some of the nation's most pressing problems. PNNL conducts fundamental and applied research to address important issues including securing our homeland, reducing our dependence on foreign oil, transforming the energy system, making information access easier, and protecting our natural resources.

PNNL's facilities form a world-class campus, including many laboratories recognized as best-in-class for many research areas. With an international reputation for studies in chemistry, biology, computer sciences, and a wide range of other fields, award-winning PNNL researchers rapidly translate theory into concrete solutions. Many of the Laboratory's technologies have been developed into common consumer and industrial products, including the compact disc (CD).

The Laboratory consistently attracts some of the world's leading scientific talents shaping the future of science through a variety of on-site educational programs. As mentors and research partners, the Laboratory's staff trains young scientists and engineers to become tomorrow's inventors. Student research opportunities at PNNL include appointments in atmospheric science and global change, computational sciences, experimental chemistry, marine sciences, molecular biology, environmental studies, remediation, environmental microbiology, wildlife and fisheries biology, materials research, process science and engineering, economics and political science.

Located in southeastern Washington near the base of the Blue Mountains and the confluence of the Columbia, Snake and Yakima rivers, PNNL staff enjoy year around recreation, locally-produced fine wines, and the community's commitment to the arts.

## PRINCETON PLASMA PHYSICS LABORATORY Princeton, New Jersey

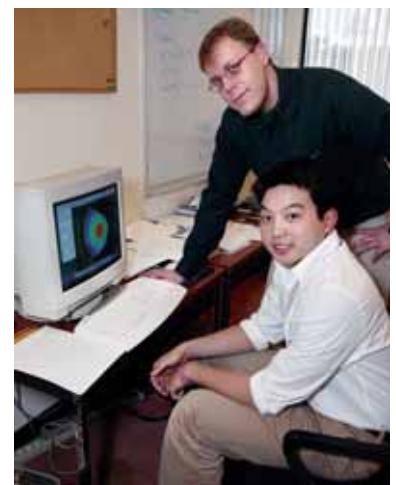


The world's reliance on fossil fuels is imperiling our environment. Fusion, the energy source of the sun and the stars, offers an inexhaustible alternative. A fusion-powered electric generator would not produce hydrocarbon emissions, greenhouse gases, or long-lived radioactive waste; nor would it emit chemicals that cause acid rain. Consequently, the U.S. Department of Energy (DOE) Office of Science has made the development of commercial fusion power one of its highest priorities.

DOE's Princeton Plasma Physics Laboratory (PPPL) is one of the world's leading facilities for fusion R&D.

Currently the PPPL is operating the National Spherical Torus Experiment (pictured above) and is building the National Compact Stellarator Experiment, both use magnetic fields to confine hot ionized gas (plasma) that serves as the fusion fuel. PPPL's theoretical physicists are developing computational physics models that can predict how various plasma configurations will perform, saving time and money.

PPPL experimental physicists collaborate with their colleagues worldwide in a free, mutually beneficial, exchange of information. Princeton researchers and engineers are using knowledge and skills gained in fusion research to solve other problems, including the development of plasma-based propulsion systems for space vehicles, studies of plasma phenomena that occur in the sun's corona and the earth's magnetosphere, and research on plasma sterilization of plastic food and beverage containers. PPPL is located about three miles from Princeton University's main campus in Princeton, NJ.



## STANFORD LINEAR ACCELERATOR CENTER Menlo Park, California



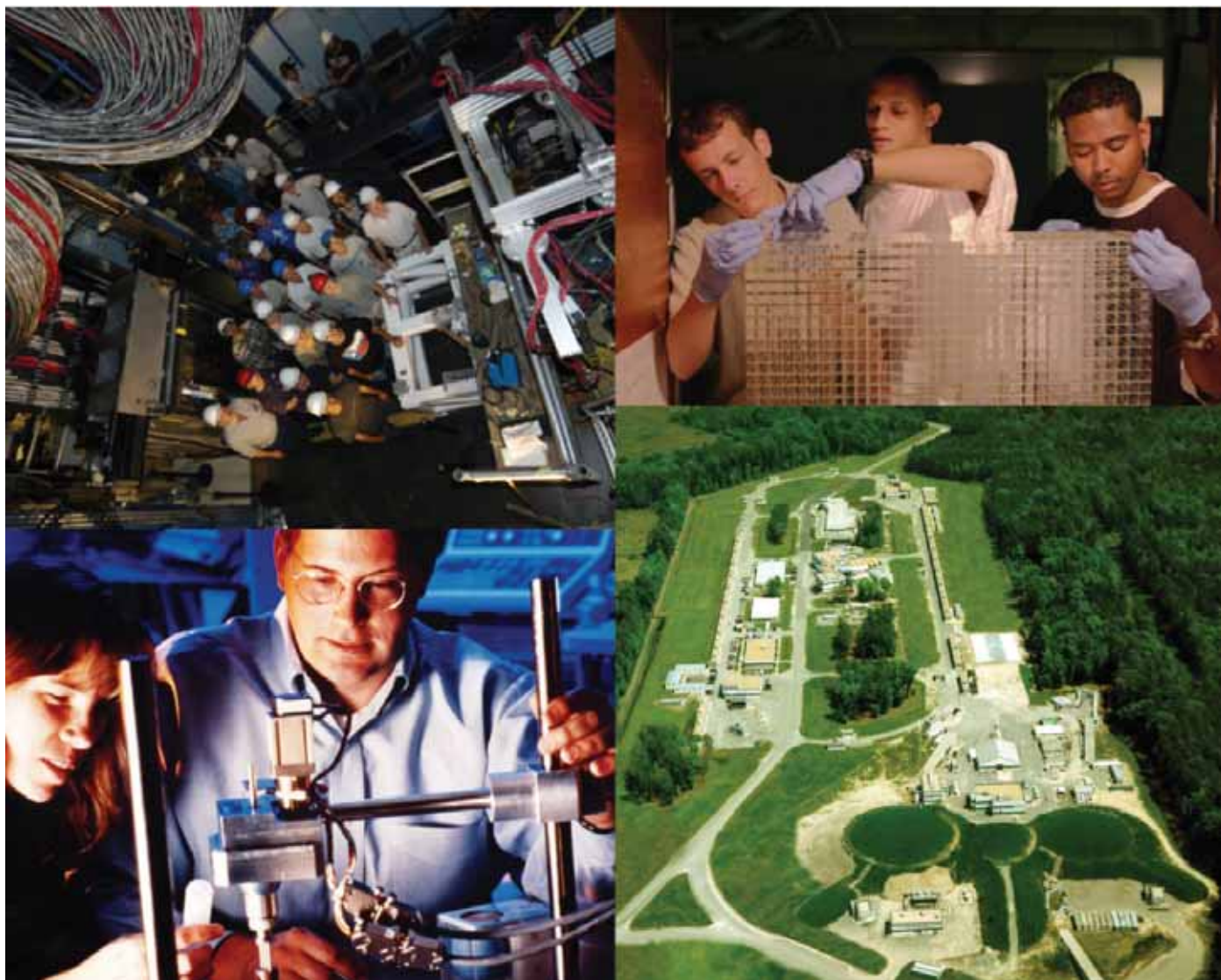
The Stanford Linear Accelerator Center (SLAC) is one of the world's leading laboratories for research in high-energy physics (HEP), particle astrophysics and cosmology, and synchrotron radiation research.

SLAC's HEP program seeks answers to fundamental questions about the ultimate structure of matter and the forces between these fundamental particles. The BABAR experiment investigates matter/anti-matter asymmetry and is the current focus of the HEP program. In addition, a vigorous R&D program is focused on realizing the next generation electron collider — the International Linear Collider, as part of a world-wide effort.

The Kavli Institute at SLAC for Particle Astrophysics and Cosmology bridges theoretical and experimental physics communities, and brings their combined strengths to bear on some of the most challenging and fascinating problems in particle astrophysics and cosmology to help us understand the birth and evolution of the universe.

The Stanford Synchrotron Radiation Laboratory (SSRL) at SLAC, provides high intensity x-ray beams for molecular and atomic scale studies in physics, biology, chemistry, medicine, and environmental science. The Linac Coherent Light Source (LCLS), a facility to provide even more intense x-ray capability is now under construction. Pioneering experiments at LCLS will advance our understanding of everything from the hidden physics inside planets, to how proteins function as the engines of life, to building nanotechnology devices for the backbone of future industry and technology.

## THOMAS JEFFERSON NATIONAL ACCELERATOR FACILITY Newport News, Virginia



The Thomas Jefferson National Acceleration Facility, or Jefferson Lab, is a nuclear physics research laboratory located in Newport News, Virginia. Nuclear physics research scientists who use Jefferson Lab are on a journey of discovery into the nucleus of the atom. Their goal is to develop a roadmap of matter that helps unlock the secrets of how the universe is put together. Nuclear physics funding from the Department of Energy provides Jefferson Lab with leading-edge instrumentation, world-class facilities and training and support for the people involved in these pursuits. Forefront nuclear physics research conducted at Jefferson Lab provides solid foundations for other fields. The accumulation of new results and the intellectual training of new generations of scientists foster important advances in medicine, chemistry and other sciences.

Scientists at Jefferson Lab use the Continuous Electron Beam Accelerator Facility — the first large-scale application of superconducting radiofrequency technology — to conduct physics experiments. Using accelerated electron beams, experimenters probe the sub-nuclear realm. Using this same technology, Jefferson Lab has built the world's brightest high average power Free Electron Laser that offers unique capabilities for defense, industry, basic research and medicine.