

Right: In FY 2006, NSF awarded nearly \$12 million to the California Institute of Technology (Caltech) for the development of software to analyze neutron-scattering experiments. Neutron scattering looks at the position and motion of the atoms that make up materials, molecules, and condensed matter at various temperatures and pressures to analyze their stability. This work could affect the design of new materials for a huge variety of applications in transportation, construction, electronics, and space exploration. According to project leader Brent Fultz, Professor of Material Science and Applied Physics at Caltech, the research will eventually show how new materials can be optimized for mechanical strength, electrical conductivity, energy storage, and resistance to corrosion. Using data from facilities such as DOE's new Spallation Neutron Source (SNS) in Oak Ridge, Tennessee, this project will integrate new materials theory with high-performance computing. The image at the right shows Rick Martineau of Los Alamos National Laboratory conducting a final inspection of an SNS component before it is shipped.

For more information:

www.nsf.gov/news/news_summ.jsp?cntn_id=107078

“All of us would like the Foundation to be recognized as a home for transformational research—that is research with the potential to revolutionize existing disciplines or bring an entire new field of research into existence. We will need to take an aggressive approach—a willingness to place bets on new frontiers. To do that, we will have to hone our risk-taking skills—reaching out beyond familiar territory to the truly unknown. As Will Rogers once said, ‘Sometimes you have to go out on a limb because that’s where the fruit is.’”

Arden L. Bement, Jr.

For more information:

NSF's FY 2006 Performance and Accountability Report is available at www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf0701



FROM THE DIRECTOR



Arden L. Bement, Jr.
Director

The National Science Foundation (NSF) is the only federal agency dedicated to the support of fundamental research across all fields of science and engineering and all levels of science and engineering education. For more than 50 years, NSF has had a profound and far-reaching impact on protecting the environment, improving people's health and standard of living, sustaining the nation's competitiveness in a global economy, and supporting homeland security. NSF has been at the forefront of discovery—nearly 200 Nobel Prize winners, and thousands of other distinguished scientists and engineers have conducted their groundbreaking research with the help of NSF funding. In addition, NSF investments are critical to producing the next generation of world-class scientists and engineers who will develop the ideas and research tools needed to address the challenges we face now and in the future.

In fiscal year (FY) 2006, NSF received over 42,000 proposals and made 10,450 new awards to 1,700 colleges, universities, and other research enterprises throughout the country. The discoveries resulting from these investments in all fields of science and engineering research and education are both exciting and transformative. Included here are results reported in FY 2006 by NSF grantees—from individual researchers to multinational collaborations involving researchers from several disciplines. NSF's establishment of a foreign office in Beijing, China, last spring will permit more effective participation in the international arena as well as education initiatives that will help build a greater capacity for productive multinational collaboration.

In FY 2006, NSF-supported researchers conducting on-site studies across the southeastern United States were able to determine how and why numerous levees failed during Hurricane Katrina, thus providing data that will enable engineers to adjust and improve on their plans for repairs.

NSF-supported researchers at New York University's Courant Institute of Mathematical Sciences developed a new algorithm that makes it much easier to detect certain cancer genes. These are only two examples of the many discoveries reported by NSF-supported researchers last year—discoveries that have important implications for the future. Additional discoveries are discussed in this report and can also be found on the NSF website at www.nsf.gov/discoveries.

Underlying NSF's programmatic achievements is a commitment to results-oriented management practices and sound financial oversight. Some notable achievements include the following:

- NSF received its ninth consecutive unqualified "clean" opinion from an independent audit of its financial statements, with no material weaknesses reported. NSF is in substantial compliance with the Federal Managers' Financial Integrity Act of 1982, although a qualified management assurance over internal control is being reported because of the limited scope of the internal review of financial reporting.
- NSF is one of only a handful of agencies that have maintained "Green" successful ratings in four or more of the President's Management Agenda initiatives.
- All NSF programs evaluated to date by the Office of Management and Budget's Program Assessment Rating Tool are among the 15 percent government-wide that have received the highest "Effective" rating.
- NSF successfully achieved all four strategic outcome goals and nearly 70 percent of our annual GPRA performance goals.
- NSF made headlines by winning a Webby Award in a competition that *Time* magazine calls the "online Oscars." NSF was named the Best Government Website of 2006 in the annual People's Voice voting. At the 2005 Vision Awards, the *FY 2005 Performance Highlights* report received a League of American Communications Professionals Honors Award. NSF was also the only federal agency to be recognized for five years of distinction in its annual reports. These awards speak to NSF's continuing commitment to be informative and accountable to its stakeholders, its customers, and the public in its pursuit of scientific excellence and sound stewardship of the public's resources.

I hope you will enjoy reviewing this report. To learn more about the achievements of the past year and about the exciting discoveries that are emerging every day, I invite you to read the *FY 2006 Performance and Accountability Report* and to visit NSF's award-winning website.



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