

News about the Berkeley, Livermore and Los Alamos national laboratories, which are managed by the University of California for the U.S. Department of Energy

RESEARCH AND PUBLIC SERVICE NEWS

MEDICAL RESEARCH: Scientists from Berkeley Lab and UC Berkeley obtained high resolution images of a protein complex that appears to help bacteria repel a wide range of antibiotics. The images, published in *Science*, offer new insights into the growing health problem of multidrug resistance and may help researchers develop more effective antibiotics. The team focused its inquiry on a protein that resides in the inner membrane of *E. coli* bacteria, some varieties of which cause food poisoning. The high resolution images were obtained using the Berkeley Lab's Advanced Light Source (ALS).

CLIMATE RESEARCH: Lawrence Livermore scientists determined that uncertainties in satellite data can affect studies measuring human impact on climate. They examined differing conclusions reached by other research groups that looked at microwave data picked up by satellites to measure temperature changes at various levels in the atmosphere. One group found little or no atmospheric warming in the troposphere (the lower atmosphere) since 1979. Another group found a tropospheric temperature rise of about 0.4 degrees F. in the same period.

"There are still large uncertainties in our estimates of how tropospheric temperatures have changed," said Ben Santer, Livermore's lead researcher on the project. "It's important to take these uncertainties into account in evaluating the reliability of climate models."

Researchers from the Berkeley Lab were among those participating in the effort, which used DOE's National Energy Research Scientific Computer Center, located at LBNL.

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Message from the president

This is the latest in our efforts to keep you updated on news at the national laboratories managed by the University of California for the federal government.

Since the Secretary of Energy announced his intention to compete the Los Alamos National Laboratory contract when it expires, there have been some further developments. Linton Brooks, head of the National Nuclear Security Administration, has visited with employees at the Los Alamos and Livermore laboratories and has made a presentation to the UC Board of Regents, encouraging the University to participate in any future competition.

There are many questions that must be addressed before the University makes any such decision. It will be several months, for instance, before the terms of the competition are known. We look forward to more conversations about these issues in the coming weeks and months.

One thing is certain: The work being produced by employees at all three UC-managed national laboratories continues to be of the highest quality, and the University remains proud of the laboratories' outstanding accomplishments.



Richard C. Atkinson
President, University of California

President Atkinson's testimony to the May 1 meeting of the House Energy and Commerce Committee's Subcommittee on Oversight and Investigations is at <http://www.universityofcalifornia.edu/news/losalamos/0503hearing.html>

Other Los Alamos information can be reached at <http://www.ucop.edu/news/archives/2003/apr30art1.htm>

MANAGEMENT NEWS

Atkinson announces intention to appoint Nanos permanent LANL director

President Richard C. Atkinson announced his intention to appoint George P. "Pete" Nanos permanent director of LANL. Nanos has served as interim director since Jan. 6. "I had intended to conduct a national search for a new director of the Los Alamos National Laboratory, but Pete Nanos' superb performance over the last several months makes such a process unnecessary," Atkinson said. "Under the most trying of circumstances, Pete has provided bold, innovative, and compassionate leadership to the hard-working men and women of the Los Alamos laboratory. I can think of no person better suited to lead this critical national security laboratory through the coming period and to preserve its standards of excellence."

Nanos' leadership at Los Alamos has coincided with major reforms in the operations of the laboratory's business and administrative functions. In the nearly five months he has been interim director, he is credited with creating a new atmosphere of openness in communications and sound management accountability processes, while at the same time refocusing the Laboratory business practices and on the science of its weapons program.

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HOMELAND SECURITY: Los Alamos National Laboratory's Center for Homeland Security hosted key U.S. Department of Homeland Security visitors for a special dedication ceremony in early May. The Center is the key contact point at the Laboratory for organizations seeking scientific and technical assistance in areas related to homeland security. Distinguished guests for the dedication from the Department of Homeland Security included Charles E. McQueary, DHS under secretary for Science and Technology. The Center was established in December 2002.

TREATY ENFORCEMENT: Lawrence Livermore became the second U.S. lab certified to analyze samples collected during challenge inspections conducted under the Chemical Weapons Convention, which prohibits the acquisition, stockpiling and use of chemical weapons, as well as the transfer of chemical weapon related technologies. (The first U.S. lab to be certified is in Maryland.) To achieve certification, the Lab's Forensic Science Center had to pass three grueling proficiency tests. In the latest, held last fall, the Center had to analyze three chemical samples for any of thousands of chemicals of concern, precursor compounds or decomposition products. Researchers were given 15 days to identify and report the "suspected" chemical weapons compounds.

ENVIRONMENTAL PROTECTION: New technology makes it possible nearly to eliminate mercury, a persistent environmental and health problem, from the laboratory environment, according to Los Alamos researchers.

Mercury is almost ubiquitous in aging laboratory equipment, where it can go unnoticed and is easily spilled. LANL learned a useful lesson in 2000, when two separate small mercury spills took place in the Chemistry and Metallurgical Research facility as a result of removing old electrical equipment. The spills were fully cleaned, but the events showed that more needed to be done to avoid or prevent mercury contamination.

The Laboratory then began an aggressive mercury waste avoidance program, replacing mercury-containing pressure gauges, switches and other devices with mercury-free alternatives. In addition, the program considers innovative disposal, recycling and cleanup options.

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University of California: www.universityofcalifornia.edu
U.S. Department of Energy: www.energy.gov
National Nuclear Security Administration: www.nnsa.doe.gov
Lawrence Berkeley National Laboratory: www.lbl.gov
Lawrence Livermore National Laboratory: www.llnl.gov
Los Alamos National Laboratory: www.lanl.gov

Please direct questions about this newsletter to Jeff Garberson, University of California Office of the President, (510) 987-0105, jeff.garberson@ucop.edu

NNSA Administrator Brooks meets with Regents

Linton Brooks, Administrator of the National Nuclear Security Administration, addressed the Board of Regents at the May 15 meeting. His visit follows a decision by the Secretary of Energy to compete the Los Alamos contract when it expires in 2005. Brooks praised the University for its effective response since December to problems at Los Alamos and urged it to compete at the appropriate time. Among his points:

- In the coming year, NNSA will develop criteria for the competition for the Los Alamos contract. A likely schedule, "if history is any judge," would see a request-for-proposal in fall 2004, bids in early spring 2005 and a decision in summer 2005.
- DOE intends to change the current Los Alamos contract to allow the use of fee to support competition, if the University decides to compete.
- Los Alamos has been carrying out its scientific and technical mission "superbly."
- The high scientific quality and prestige of the University have been essential factors in the ability of Los Alamos to hire and retain outstanding staff. The scientific skepticism and peer review embodied in the University culture must be retained.
- A decision on whether to compete Livermore's contract has not been made. It is legally possible for UC to continue to operate Livermore while the Los Alamos contract is competed.

President's Council chair reports to Regents

William L. Friend, chairman of the President's Council on the National Laboratories, reported to the Board of Regents on May 15 that the laboratories are scientifically vital and "more important and relevant than ever in today's ever-changing and dangerous world." He also said that in his view, the University's management and operation of the labs have been "essential to their continued success and benefit to the nation."

Among many other points, Friend noted the labs' "rigorous systems of internal and external peer review The three Laboratories have some 40 divisions in total, each of which has a peer review committee composed of subject matter experts. Taken together, the membership of these peer review committees consists of 325 of the top scientists and engineers from across the nation." In addition, he pointed out, the President's Council's Panels provide peer review "over the national security programs and operations aspects of Laboratory work ... including working with senior UCOP management to further enhance the integration and cooperation of the national security programs, working with senior NNSA leadership to resolve resource and scheduling conflicts, and numerous other issues."

The full text of Friend's remarks may be read at:
http://labs.ucop.edu/internet/pdf/PresCouncRpt_5_15.pdf

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