

NewsLetter

Week of Nov. 21, 2005

Vol. 6, No. 24

Inside this issue ...

Lab observance honors nation's veterans

The Laboratory recently honored the nation's veterans at a Veterans Day flag raising ceremony outside the Otowi Building. There are approximately 950 University of California employees working at the Lab who are veterans, in addition to several hundred sub-contract personnel. Page 2



Los Alamos tracks influenza genetic codes

In the same way that the FBI archives the fingerprints of criminals nationwide, the Laboratory archives the genetic codes for influenza strains worldwide. Page 3



Godiva disassembly completed at TA-18

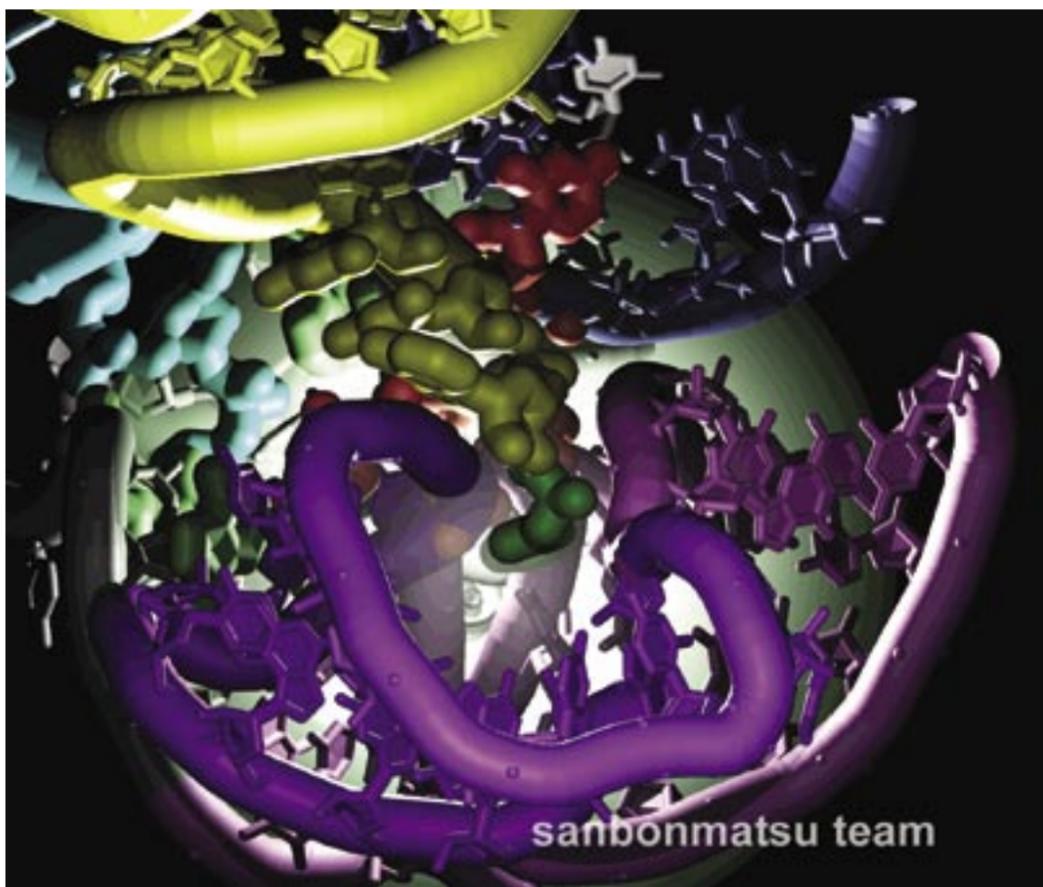
A chapter of the Lab's storied history recently was closed at Technical Area 18. The Godiva Critical Assembly was successfully disassembled in preparation for shipment to the Nevada Test Site. Page 5

Lab employees judge local science fair

An old German proverb reads: "He who teaches children learns more than they do." Alan Gurevitch of Nuclear Materials Technology Process Engineering, Implementation, and Maintenance (NMT-12) couldn't agree more with this simple, yet profound statement. Page 8



As the holiday season approaches, many Americans traditionally pause to reflect on the people, things or events affecting their lives for which they are thankful. What have you been most thankful for during this past year? Learn what your co-workers had to say on Page 6.



The ribosome is a living factory, the essential element within cells that creates proteins by decoding each protein type's specific recipe that is stored within messenger RNA. Ribosomes are a fundamental model for future nano-machines, producing the protein building blocks of all living tissue. In this image, the amino acid (green) slithers into the chemical reaction center, moving through an evolutionarily ancient corridor of the ribosome (purple). The amino acid is delivered to the reaction core by the transfer RNA molecule (yellow). Image courtesy of Kevin Sanbonmatsu

Researchers set world record with million-atom computer simulation

by Nancy Ambrosiano

Researchers at the Laboratory have set a new world's record by performing the first million-atom computer simulation in biology. Using the "Q Machine" supercomputer, Los Alamos computer scientists created a molecular simulation of the cell's protein-making structure, the ribosome. The project, simulating 2.64 million atoms in motion, is more than six times larger than any biological simulations performed to date.

The ribosome is the ancient molecular factory responsible for synthesizing proteins in all organisms. Using the new tool, the Los Alamos team led by Kevin Sanbonmatsu of Theoretical Biology and Biophysics (T-10) is the first to observe the entire ribosome in motion at atomic detail. This first simulation of the ribosome offers a new method for identifying potential antibiotic targets for such diseases as anthrax. Until now, only static, snapshot structures of the ribosome have been available.

A paper describing the effort was published in a recent edition of Proceedings of the National Academy of Sciences.

Sanbonmatsu posits that this technique offers a powerful new tool for understanding molecular machines and improving the efficacy of antibiotics. Antibiotic drugs are less than one one-thousandth the size of the ribosome and act like a monkey-wrench in the machinery of the cell. Such drugs diffuse into the most critical sites of this molecular machine and grind the inner working of the ribosome to a halt.

"Designing drugs based on only static structures of the ribosome might be akin to intercepting a missile knowing only the launch location and the target location with no radar information. Our simulations enable us to map out the path of the missile's trajectory," Sanbonmatsu said.

"The methods and implications lie at the interface between biochemistry, computer science, molecular biology, physics, structural biology and materials science,"

continued on Page 4


NewsLetter

P.O. Box 1663
 Mail Stop C177
 Los Alamos, NM 87545

Nonprofit Organization
 U.S. Postage Paid
 Albuquerque, NM
 Permit No. 532

LALP-05-002



Uninvited guests can spoil the holidays

With all the time, effort and planning that goes into holiday cooking, it's tempting to take a few shortcuts when it comes to preparing the meal. But don't.

Food preparation practices popular during this time of year can increase the risk for unwelcome bacteria and food-related illness. Hectic schedules may contribute to cutting corners in the kitchen, and home cooks may be less familiar with cooking the large pieces of meat often served at this time of year.

Keep dining experiences safe and enjoyable this holiday season by following these tips:

- Practice the clean-separate-cook-chill guidelines.

Clean: Wash hands and food-contact surfaces often.

Separate: Don't cross-contaminate; this is especially important for raw meat and seafood.

Cook: Cook to proper temperatures. Use a food thermometer.

Chill: Refrigerate promptly.

- Keep hot foods hot and cold foods cold.

The "danger zone" for the growth of harmful bacteria is 40-140 degrees Fahrenheit.

- Perishable foods should not be left at room temperature for more than two hours.

- Enjoy commercial eggnog, but stay clear of home-prepared eggnog made with raw eggs. Salmonella, present in raw and under-cooked eggs, also is a risk in raw, homemade cookie dough containing eggs.

- Follow food-safety guidelines for the preparation, handling and storage of homemade food gifts that you give and receive.

For more information, go to www.foodsafety.gov/ online.

Transition Web site unveiled

The following is from a Nov. 10 all-employee memo from Laboratory Director Bob Kuckuck.

During my all-hands talk in October, I mentioned the importance of providing Laboratory employees with timely, accurate information and continuous communication during the upcoming contract transition process. Updating employees and their families regarding the elements of the transition on a regular basis and offering a reliable official resource for such information will alleviate much of the uncertainty many of you may be experiencing in this time of change.

With these objectives in mind, I am excited to let you know about [the] launch of the Lab's new transition Web site — a communications portal designed to act as a fluid conduit for up-to-date information on the new contract implementation.

Accessible via the Laboratory's internal home page, external Web site and the Daily NewsBulletin, the site was designed to be employees' primary tool to obtain information on the transition process. It is both convenient and easily reached, offering a forum for the dissemination of continuous information and the opportunity for employees to maintain dialogue with contract management by submitting questions online. Some of the sections offered on the transition site include

- Transition resources — project team and implementation schedule information
- Links to news articles pertaining to the contract
- Lab announcements regarding new contract information
- University of California and Laboratory employee resources
- A question-and-answer feature.

All the above tools will serve to enhance an individual's knowledge of the transition process and general state of the Laboratory. And, I know you will find the question-and-answer section especially useful as it allows employees to submit a question to the transition team through the site as well as view responses to similar questions submitted by their colleagues.

As we go through this process, keep in mind the statement made by [UC] President [Robert] Dynes in his Sept. 26 letter to Lab employees. "Whether the Department of Energy chooses the LANS, LLC team or another competitor, the University [of California] will work with you, the future contractor and the Department of Energy to ensure as seamless a transition as possible with minimal impact to you, your families and the work at the Laboratory."

I sincerely encourage employees to visit the transition site at <http://transition-int.lanl.gov/> to become familiar with its features. I also encourage you to utilize the public site at <http://transition.lanl.gov/>. In my opinion, open communication and information sharing, facilitated in part by the regular use of this site as a resource, will contribute to the foundation of the transition's success.



Bob Kuckuck

Los Alamos National Laboratory NewsLetter

The Los Alamos Newsletter, the Laboratory bi-weekly publication for employees and retirees, is published by the Public Affairs Office in the Communications and External Relations (CER) Division. The staff is located in the IT Corp. Building at 135 B Central Park Square and can be reached by e-mail at newsbulletin@lanl.gov, by fax at 5-5552, by regular Lab mail at Mail Stop C177 or by calling the individual telephone numbers listed below. For change of address, call 7-3565. To adjust the number of copies received, call the mailroom at 7-4166.

Editor:

Jacqueline Paris-Chitanvis, 5-7779

Associate editor:

Steve Sandoval, 5-9206

Production editor:

Denise Bjarke, 7-3565

Graphic designer:

Edwin Vigil, 5-9205

Staff photographer:

LeRoy N. Sanchez, 5-5009

Los Alamos National Laboratory is operated by the University of California for the National Nuclear Security Administration (NNSA) of the U.S. Department of Energy and works in partnership with NNSA's Sandia and Lawrence Livermore national laboratories to support NNSA in its mission.

Los Alamos enhances global security by ensuring safety and confidence in the U.S. nuclear stockpile, developing technologies to reduce threats from weapons of mass destruction and improving the environmental and nuclear materials legacy of the Cold War. Los Alamos' capabilities assist the nation in addressing energy, environment, infrastructure and biological security problems.



Printed on recycled paper. Please recycle.



Lt. Joe Lopez, left, of Protection Technology Los Alamos and C-Ensign Jonathan Ussery of the Los Alamos High School Junior Naval ROTC program raise the American flag at the Laboratory's Veterans Day observance.

Lab observance honors nation's veterans



Laboratory Fellow Louis Rosen speaks to employees and others in attendance at the Veterans Day flag raising ceremony outside the Otowi Building. Next to Rosen is David Swingle of Assessments (AA-2), master of ceremonies at the presentation of colors. Rosen spoke at the veterans breakfast and later in the Physics Building Auditorium, also at Technical Area 3. There are approximately 950 University of California employees working at the Lab who are veterans, in addition to several hundred subcontract personnel who also are veterans. Photos by James E. Rickman

Los Alamos tracks influenza genetic codes

by Kevin N. Roark

In the same way that the FBI archives the fingerprints of criminals nationwide, the Laboratory archives the genetic codes for influenza strains worldwide. This project — the Influenza Sequence Database (ISD) — is a repository for influenza sequences. Researchers worldwide use the ISD to track influenza as it mutates and spreads around the globe.

The ISD project, which began in 1998, now holds all published influenza A, B and C sequences and a large number of unpublished sequences. The Laboratory's database is the largest public collection of such codes in existence. The ISD stores alignment of flu DNA sequences, providing a unique view of pathogens and their "family" of members. The ISD provides expert curation and is openly available to all flu researchers, both public and private.

"What we have is totally unique," says ISD project leader Catherine Macken of Theoretical Biology and Biophysics (T-10). "The LANL ISD is used by thousands of researchers all over the world and is a great example of how public and private organizations can partner to solve one of the most threatening dilemmas facing mankind."

Researchers continue to build the database by directly depositing sequences into the ISD. The ISD provides the research community with sequence deposit and retrieval capabilities. In addition, the ISD has developed tools for analysis of the evolution of the virus including the two viral proteins, hemagglutinin and neuraminidase, that are targets for vaccines and anti-influenza drugs. Details about ISD can be found at <http://flu.lanl.gov> online.

Given its long history of success and commitment to the influenza research community, the project was recently expanded to offer researchers custom tools and private storage on a subscription basis. Base subscriptions to the ISD start at \$1,500 annually for noncommercial organizations and \$4,000 annually for commercial entities.

The ISD is used by two classes of researchers and medical professionals:

1. Public users — Current public users access ISD with minimal or no interaction with the Los Alamos ISD team. These users access only the publicly available data in the database, and they do not require customization of the existing ISD tools to serve their research needs.

2. Private users — Private users require some level of interaction with the ISD team to meet their specialized needs for the database. They often require customized research tools and may need the Los Alamos team to set up private compartments within ISD to house their proprietary data. Current private users include representation from public health organizations responsible for vaccine design.

The ISD has been funded in the past by a "who's who" of bioinformatics experts, including the U.S. Centers for Disease Control and Prevention, the Department of Energy, the University of California and the Laboratory.

As the world faces a time of growing threat from influenza, Los Alamos stands ready to assist in increasing the global capability to track and analyze influenza, and the Los Alamos ISD will continue to be the world's central repository for influenza sequence data.



Country Store events benefits United Way

Josephina Salazar of Space Science and Applications (ISR-1) and Terry Martinez of the Nuclear Nonproliferation (N) Division look at some of the homemade craft items at the Country Store at the Nonproliferation and International Security Center. The crafts were just some of the many items available for purchase at this United Way fund raising event. Several directorates and divisions teamed up for the fund raising venture, which raised more than \$3,000 for the United Way. Check the online Daily Newsbulletin's United Way calendar for upcoming fund raising events. Lab divisions and groups are encouraged to organize their own events to support the fund-raising effort. As of press time, the Laboratory's 2006 United Way giving campaign, "Making a Difference for Generations," had raised \$530,000 in pledges and donations and from special events. The campaign continues through Nov. 30. Photo by Melinda Gutierrez of Operations Support (N-5)

e-Science

by Tom Bowles,
chief science officer



A term that people may not be familiar with is e-Science. But you can bet that you will be hearing a lot more about it soon.

e-Science refers to a new model of collaborative scientific research in which geographically distributed groups of scientists share collections of computing resources, sensors and instrumentation, and data repositories. The physical infrastructure that supports e-Science is generally called cyberinfrastructure. So much for the definition — what does this have to do with Los Alamos?

Because our location was selected to provide for secrecy, Los Alamos is geographically isolated from the national scientific community, and because Los Alamos covers more than 40 square miles, our staff is geographically separated from one another. This separation makes it difficult to forge collaborations between staff in different groups and divisions and to collaborate with external institutions. e-Science makes it possible to

collaborate more effectively remotely and makes it easier to find out what other people are working on at the Laboratory that may be relevant to your own research or program needs.

We already are making substantial investments in the cyberinfrastructure that supports e-Science: the Turquoise network for open collaborative research, a new Linux cluster (Coyote) that will triple our computational capabilities and improving the bandwidth off the hill by a factor of 16. The Research Library is a central resource for e-Science, not only for capabilities like the Digital Library but also for the knowledge and skills of the library staff that will help us move e-Science forward.

We are planning to make modest investments this year in e-Science to demonstrate the capabilities it can bring to help our scientists do collaborative, interdisciplinary research more effectively. I anticipate our involvement in e-Science will grow substantially over the next several years. Both the Department of Energy and the National Science Foundation are making large (several hundred-million dollar) investments in e-Science. Given our geographic challenges, it is essential that the Laboratory be at the head of the pack. It is ourselves who will benefit the most. If you are interested in learning more about e-Science, contact Rick Luce, director of the Research Library.

Annual Holiday Drive

The Laboratory's 2005 Holiday Drive to collect new toys and nonperishable food items for Northern New Mexico continues through Dec. 12. For more information, contact Debbi Wersonick of the Community Relations Office (CRO) at 7-7870.

Tech Lab opens at the Bradbury Science Museum



Rachel Martineau of Los Alamos plays with the *Ready, Steady, Go* interactive learning tool at the Bradbury Science Museum's Tech Lab opening. Martineau is in the fourth grade at Pinon Elementary School in White Rock. Her task was to successfully move the loop through the wire without making contact and setting off the light. Her mother, Liz is a science educator at the museum.



Nathaniel Been and his father, Karl, of Denver, dropped into the recent opening of Tech Lab. Nathaniel is looking at a model and structure of the human brain. Photos by Ed Vigil

Laboratory software that takes the 'wiggle' out of computer network worms goes public

By Jim Fallin

The Laboratory had the first public and commercial demonstration of its NARQ software to deal with the ever-growing threat posed by malicious computer network worms at the Supercomputing 2005 conference in Seattle, Wash.

The Technology Transfer (TT) Division is seeking to commercialize NARQ software in an effort to assist industry with one of the most significant threats posed today: malicious attacks by worms and other self-replicating intrusion software.

Computer viruses and worms cost companies billions of dollars annually in lost data, repair costs and loss of productivity. Computer worms are programs that spread themselves from computer to computer over a network. Worms, unlike viruses, do not infect programs, diskettes or files with macro capabilities; instead, they make copies of themselves and send these copies over the network to other targeted machines, ultimately bringing the entire enterprise computer system down.

Los Alamos developed NARQ as a response to this ongoing threat after an extensive and exhaustive search for a commercial product.

The Laboratory's Technology Transfer (TT) Division is responsible for licensing select, mature technologies invented at the Lab to assist U.S. companies in increasing their global competitive capabilities.

The commercialization of NARQ may be accomplished as a new standalone product or as a set of features for an existing product. The NARQ technology includes software source code, access to the inventors and rights to the patent-pending search and mapping algorithm.

Applications for NARQ include immediate response to detected invasive infections (worms), instant quarantine to remove infected computers and devices from the network at the port level, and network planning and optimization. NARQ was designed for robust and heterogeneous networks, providing instantaneous, automated reaction to a detected attack.

NARQ is available for licensing. Contact TT Division for plan format and requirements.

Additional information concerning NARQ can be obtained by contacting TT Division or by writing to narq@lanl.gov by e-mail or go to <http://www.lanl.gov/narq> online.

Largest computational biology simulation ...

continued from Page 1

said Sanbonmatsu. "I believe the results serve as a proof-of-principle for materials scientists, chemists and physicists performing similar simulations of artificial molecular machines in the emerging field of nano-scale information processing.

Sanbonmatsu's study focuses on decoding, the essential phase during protein synthesis within the cell wherein information transfers from RNA to protein, completing the information flow specified by Francis Crick in 1958 and known as the Central Dogma of Molecular Biology. "The ribosome is, in fact, a nano-scale computer and is very much analogous to the 'CPU' of the cell," he said.

The ribosome is so fundamental to life that many portions of this molecular machine are identical in every organism ever genetically sequenced. In developing the project, the team identified a corridor inside the ribosome that the transfer RNA

must pass through for the decoding to occur, and it appears to be constructed almost entirely of universal bases, implying that it is evolutionarily ancient.

The corridor represents a new region of the ribosome containing a variety of potential new antibiotic targets. The simulations also reveal that the essential translating molecule, transfer RNA, must be flexible in two places for decoding to occur, furthering the growing belief that transfer RNA is a major player in the machine-like movement of the ribosome. The simulation also sets the stage for future biochemical research into decoding by identifying 20 universally conserved ribosomal bases important for accommodation, as well as a new structural

gate, which may act as a control mechanism during transfer RNA selection.

The multi-million-atom simulation was run on 768 of the "Q" machine's 8,192 available processors. Sanbonmatsu worked to develop the simulation with Chang-Shung Tung, also of T-10, as well as Simpson Joseph of the University of California, San Diego.

Funding for the research was provided by the National Institutes of Health, Los Alamos' research and development fund, and support from the Laboratory's Institutional Computing Project.

**For Laboratory closures,
delays or early
dismissal information,
call UPDATE at 667-6622
or 1-877-723-4101 (toll free).**



Godiva disassembly completed at TA-18

by Ed Kellum

A chapter of the Laboratory's storied history recently was closed at Technical Area 18. The Godiva Critical Assembly, or Godiva IV, was successfully disassembled in preparation for shipment to the Nevada Test Site. The work was the culmination of an effort that began last December and involved a team of 14 highly trained critical-assembly operators, criticality-safety professionals, fissionable material handlers, nuclear material custodians and radiation protection personnel.

The Godiva Critical Assembly is one of three remaining fast burst reactors in the United States and was one of the most active assemblies at TA-18. A fast burst reactor is a prompt critical mass of highly enriched uranium metal designed to produce very intense, very short bursts of fission neutrons. The assemblies are used for lethality testing of weapon components, benchmarking weapons calculations and exploration of basic nuclear parameters of fissioning systems.

The current Godiva assembly, the fourth in the Godiva series at Los Alamos, is comprised of a stack of six interlocking uranium rings and plugs that are held together with high-strength steel clamps. Assembly and disassembly of the fuel requires the use of a hydraulic press to compress the uranium and steel loading rings to remove and reattach the clamps. Concerns were raised during the planning stages of this project that the rings could be broken or stuck together making disassembly extremely difficult.

Disassembly was done at TA-18 with personnel in full anti-contamination clothing and respiratory protection. The work was completed in five days once approvals were obtained to begin disassembly.

This task is one of the efforts underway to pack all of the nuclear materials at TA-18 for shipment to the Nevada Test Site where a facility is being designed to re-establish the TA-18 mission.

"I want to emphasize the great teamwork that went into this very sensitive operation," said David Loaiza of Advanced Nuclear Technology (N-2). "With incredible coordination the team was able to get past many internal and external hurdles to accomplish this difficult task."



Above: Antonio Maestas, left, of Health Physics Operations (HSR-1), Jim Dyson, center, of Operations Support (N-5) and Rick Paternoster of Advanced Nuclear Technology (N-2) prepare to clean Godiva before disassembly begins.



Left: Derek Dinwiddie of N-2 removes one of the clamps holding the core together with the aid of a hydraulic press to compress the stack.
Photos by Timothy Dugan of N-2

Child-care committee offers current findings

by Hildi T. Kelsey

To solicit employee feedback regarding the efforts of a volunteer committee that is investigating concerns and possible solutions related to the availability of quality child care in Los Alamos and the surrounding region, Laboratory Director Bob Kuckuck recently held an all-employee meeting.

"The committee has presented a broad spectrum of ideas and thoughts attached to the [child-care] problem. While we have not chosen a distinct path so far, I am looking forward to, in the very near future, being able to take some action," said Kuckuck. "I see a continuity of effort and momentum going that we can carry across the contract transition. I couldn't be more pleased with the progress of the committee."



Carolyn Zerkle, left, principal deputy associate director for administration (ADA), speaks with Laboratory Director Bob Kuckuck before an all-employee meeting on child care in the Physics Building Auditorium at Technical Area 3. Photo by James E. Rickman

Carolyn Zerkle, principal deputy associate director for administration (ADA), is leading the committee consisting of Mark McNulty and Jennifer Smith-Nelson of Nuclear Design and Risk Analysis (D-5); Lillian Montoya-Rael, Community Relations Office (CRO) leader; and Fred Brueggeman, former assistant county administrator for Los Alamos County.

During the meeting, each committee member honed in on specific topics related to the overall child-care issue, including presenting the history of the child-care initiative in Los Alamos, discussing some of the various child-care options/solutions the committee has developed, looking at the importance of community interface in the decision-making process and analyzing the project's next steps.

In expounding upon the history of child care in Los Alamos, Smith-Nelson made it clear that obtaining child care has been an issue for Lab employees since 1976 when the need to investigate child-care options was first identified. In the decades that followed, surveys and various committee recommendations supported this necessity (even resulting in the release of a request for proposal in 2002). However, conflicts and technicalities always seemed to stop the effort from moving forward.

Smith-Nelson said that a 1996 survey of Lab employee interests conducted by Burud and Associates revealed that 18 percent of supervisors at the Laboratory said they lost employees because of child-care issues. Consequently, a 2004 study by McNulty showed that the cost to replace such employees ranged from \$30,000 to \$800,000. In addition, Smith-Nelson showed that, based on a supply and demand comparison of available child care to the number of children requiring such care, there is a definite need for child care among Lab employees.

Given these statistics, the committee concluded that child care is a Labwide problem, not just a parental issue.

While discussing the myriad of solution options the committee constructed, McNulty outlined the who and to whom, what, where, when and how components of the decision-making process. He said the committee had to face tough questions: Who is going to provide the child care — the Lab, a subcontractor, a co-op of community providers? Or will the focus be on enhanced private services — guaranteed enrollments, parent vouchers, provider training, licensing

continued on Page 7



New Ombuds Office director to focus on enhanced communication

by James E. Rickman



Camilla Lopez

Newly selected Ombuds Office Director **Camilla Lopez** wants Laboratory employees to know that she and her staff are a good first resource for addressing workplace problems.

"Many employees at the Laboratory don't really know what Ombuds is all about," said Lopez, who recently was selected to lead the office by Richard Marquez, associate director for administration. "Part of the challenge I will face in my new role is creating an awareness of our office and its functions."

Ombuds provides an independent, neutral and confidential venue in which employees can raise workplace issues that create conflict or have the potential to create or escalate conflict. Lopez and her team can help clients determine a proper course of action that will reduce or eliminate conflicts.

The Ombuds Office provides expertise in mediation and resolution of group conflicts, as well as services for Laboratory students.

"We coach and mentor people and help them develop options," Lopez said. "We are not there to

make judgments, but rather to help people come to their own conclusions about what is the first step to take to resolve a situation."

Ombuds staff members can help guide their visitors to resolution through dialogue that examines behaviors, actions, workplace environments and even issues at home that may be contributing to problems. Ombuds is an advocate of resolving issues at the lowest possible level. In that way, individuals and the institution can often be spared the emotional trauma or actual expenses associated with situations that escalate into grievances, lawsuits or other actions.

"People need to take those types of issues to other employee services at the Lab," Lopez said. "We can act as a referral service to the proper venue for people who are looking for something beyond the scope of our office." In fact, she envisions forming extended collaborations with other employee-resource organizations to aid in the office's efforts.

Lopez said she also hopes the Ombuds Office can work with Laboratory organizations in the coming months to establish inter-organizational resources to provide Ombuds-like expertise for "easy" Ombuds issues. Earlier this year, Ombuds established a successful Employee Resource Council in Nuclear Materials Technology (NMT) Division. The council provides a model and testing ground for the satellite Ombuds-like concept. Of course, Lopez said, the main Ombuds Office still would be available to provide the confidentiality and expertise required for more complex issues.

"I am extremely excited about the potential for our office and the value that it can provide the institution," Lopez said.

The Ombuds Office is located in downtown Los Alamos in Central Park Square near Daylight Donuts. Employees requiring Ombuds assistance can call the office at 5-2837 or can drop in during normal Laboratory business hours. The Ombuds Web site is at <http://www.lanl.gov/orgs/ombuds> online.

Lopez holds a doctoral degree in organizational development and master's degrees in communications and public relations. She also holds several professional certifications, including mediation. Her work history includes experience in the Laboratory's Ombuds Office, and she has worked in accordance with the Ombudsman Association's Standards of Practice and Code of Ethics. She joined the Laboratory in 1999 and has held numerous positions in a variety of organizations.

In Memoriam

Kurt Wolfsberg

Kurt Wolfsberg died while snorkeling in the Turks and Caicos Islands on July 16. He was 73.

Wolfsberg was born in Hamburg, Germany, Nov. 1, 1931.

He received a bachelor's degree in chemistry from St. Louis University through the Air Force ROTC program. Wolfsberg was commissioned as a second lieutenant and spent two years completing a master's degree in radiochemistry at Washington University in St. Louis. He was stationed at Wright Patterson Air Force Base in Dayton, Ohio, during the Korean War. After leaving the Air Force, he received his doctorate in radiochemistry.

In 1959, Wolfsberg began working at the Laboratory in the former Field Testing (J) Division. He had a 32-year career as a nuclear chemist, retiring in 1991.

Wolfsberg is survived by his wife, Alice; daughter Dawn Flicker of Nuclear Weapons Programs (PADNWP) and husband Stuart of International Research, Analysis and Development (N-3); son Andrew of Hydrology, Geochemistry and Geology (EES-6) and wife Laura of Isotope and Nuclear Chemistry (C-INC); son Mark and wife Stacy of Delmar, N.Y.; his brother Max Wolfsberg and wife Marilyn of Corona del Mar, Calif.; and six grandchildren.

Johnnie M. Martinez

Johnnie M. Martinez passed away Oct. 3. He was 79. He was born April 13, 1926.

After serving in the Navy from 1944 to 1946, Martinez came to the Laboratory, where he worked as a warehouse assistant in the former H.S. Allen group. He retired as an associate technician from the former Dynamic Testing (M) Division in 1992.

Martinez is survived by his sons Jackie, Rickie, John and Michael Martinez, and numerous grandchildren and great grandchildren.

So... what do you think?

Q: As the holiday season approaches, many Americans traditionally pause to reflect on the people, things or events affecting their lives for which they are thankful. What have you been most thankful for during this past year?



Jody Benson of Geophysics (EES-11)

I'm grateful we still have public lands and that so many Americans are realizing we need to protect our lands to save what we have left. I am also grateful individuals are working to protect one another — to help out where the system falls short.



Erik Anderson of Telecommunications (CCN-4)

I am thankful that my six-month old grandson came through healthy and well after having open-heart surgery.



Edwin Griego of Personnel Security (S-6)

I am thankful for having a great family, for having good friends and being able to work here at the Lab for the past 25 years.



Paul Martinez of Telecommunications (CCN-4)

I am thankful for good health, my family, to be here in Los Alamos and to have the opportunity to work at the Lab. We won't be this age forever. I'm

thankful to be active, so I can appreciate Northern New Mexico and enjoy being around my family — my daughters and my wife.



Sally Eres of Personnel Security (S-6)

I am thankful for my health, my job, my family and the friends around me who are there for me.



Valarie Lopez of Staffing (HR-S)

This year I am most thankful for getting the opportunity to participate in the CFO-MBA on-site program here at the Lab.

Reaching out through hands-on instruction

Ron Wieneke of Waste Management and Environmental Compliance (NMT-7) and Barbara Tenorio-Grimes of the Government Relations Office (CER-1), along with other Lab employees, reach out to pueblo students through interactive, hands-on instructional outreach programs designed to support the Lab's educational commitment to the pueblos. This student education program, developed by the Tribal Relations Team in CER-1, along with the Nuclear Materials Technology Division (NMT), consisted of three different student workshops where kids could interact with different scientific concepts, enabling them to explore a broader range of topics in science.



Craig Brown of Nuclear Materials Information Management (NMT-3) and Lucia Sanchez of Waste Management and Environmental Compliance (NMT-7) show third and fourth grade students at Santa Clara Day School how to build and launch their own model rockets. Students learn how to use geometry to calculate a rocket's maximum altitude.



Above: Wieneke, standing, and Tony Marquez of CER-1, right, conduct a BEAM (Biology, Electronics, Aesthetics and Mechanics) robotics classroom session with fifth- and sixth-grade students at the San Ildefonso Day School. Students use hands-on activities to learn about electricity and magnetism related to robot design and operation.

Photo at right: Stephanie Hagelberg of Materials Dynamics (DX-2) uses tie-dye to introduce kindergarten, first- and second-grade students to chemistry fundamentals at Cochiti Elementary School. Student work with Laboratory volunteers to design and make their own tie-dye designs on T-shirts.



Child-care committee ...

continued from Page 5

and hiring support? For whom will such services be provided — Lab employees only, subcontractors, the community? What type of care will be provided — infant, toddler, home care, school supplemental, etc.? When will the care be provided — regular business hours, alternate work schedule hours, school schedule? Where will the care be provided — onsite at the Lab, offsite in Los Alamos, a surrounding community? How will the care be financed — through General and Administrative (G&A) policy, contractors, grants, tuition paid by employees?

McNulty stressed that there is no single, one-size fits all answer to these questions. Rather, a portfolio or menu of choices must be offered to meet the needs of Lab employees and the community. However, he did mention that the Laboratory Foundation will most likely be involved in the administration of the funding. The committee currently is trying to narrow some of the proposed solutions based on community and employees' feedback and through the use of a decision tree.

In talking about the need for community involvement, both Brueggeman and Montoya-Rael stressed that the Lab and the Los Alamos community must learn from mistakes of the past and take into consideration employee needs as well as the welfare of regional businesses. Montoya-Rael also mentioned the potential involvement of regional educational institutions, including University of New Mexico-Los Alamos and Northern New Mexico College, in the child-care effort.

Zerkle, who was adamant about "not studying things to death," presented a timeline for next steps in the child-care initiative. She said that the committee plans on finalizing all the available options by Thanksgiving in order to make decisions and define requirements by mid-January 2006. That would enable the team to develop an implementation plan outlining cost, a schedule and scope of the project by February. The committee's goal is to begin implementation of the plan while Kuckuck still is director, which means the majority of the project must be in place by June 1.

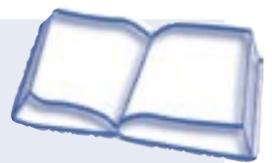
In addition, Zerkle mentioned some "quick wins" that will yield immediate results for employees, such as restarting the Lab's child-care referral Web site, which the committee hopes to have up by Christmas. Overall, she stressed that "openness with the community and socialization of ideas" will be key to the child-care project's success.

At the meeting, Lab employees expressed their concerns and shared ideas how on to enhance the program initiative. General themes of this discussion included quality, security, transportation, funding, sick child care and telecommuting.

Employees are encouraged to submit comments or questions to childcare2006@lanl.gov via e-mail.

In addition to the all-employee meeting, Director Kuckuck and members of the committee recently met with local child-care providers to gather input and hear concerns. The Los Alamos Commerce and Development Corporation helped facilitate the meeting.

This month in history ...



November

- 1666** — The first experimental blood transfusion takes place in England, utilizing two dogs.
- 1775** — The U.S. Marine Corps is established.
- 1821** — Missouri trader William Becknell arrives in Santa Fe, N.M. over a route that became known as the Santa Fe Trail.
- 1890** — First Army-Navy football game is played.
- 1911** — The first bombs dropped from an airplane are used by Italy on an oasis in Libya
- 1913** — The United States introduces an income tax.
- 1915** — Albert Einstein presents a paper on general relativity to the Prussian Academy of Sciences.
- 1918** — At the 11th hour on the 11th day of the 11th month, World War I ends.
- 1942** — Gen. Leslie Groves selects Los Alamos as the site for the bomb design laboratory, known throughout the war by its code name, Project Y.
- 1951** — Direct dial telephone service is first available coast to coast.
- 1965** — Diamond Drive re-opens in town after work to widen it to four lanes.
- 1990** — The first known World Wide Web page is written.

The information in this column comes from several sources including the online History Channel, the Newsbulletin and its predecessors, the atomic archive.com, Echo Vitural Center, Science & Technology, Real History Archives, and Carey Sublette, "Chronology for the Origin of Atomic Weapons" from www.childrenofthemanhattanproject.org/MP_Misc/atomic_timeline_1.htm.



Lab employees judge local science fair

Volunteer discovers unexpected insight

by Hildi T. Kelsey



Alan Gurevitch

An old German proverb reads: "He who teaches children learns more than they do." Alan Gurevitch of Nuclear Materials Technology Process Engineering, Implementation and Maintenance (NMT-12) couldn't agree more with this simple, yet profound statement. Not only did he recently serve as a science fair judge at Santa Fe's Carlos Gilbert Elementary, he also employed "a ground-up, person-to-person grassroots effort" to assemble a group of Lab employees to act as judges and mentors at the school.

Going into this venture, Gurevitch fully expected to apply his expertise as a mechanical and metallurgical engineer to enhance the judging process and possibly teach the students a thing or two about the functional underpinnings that make up the world around them. What he didn't expect was to discover something deeply meaningful about himself.

Gurevitch offers a glimpse into his gratifying experience as a science fair judge in the following passage:

As an awarding judge, I had the task of being one of several judges to pin science fair awards [ribbons] to the student's presentations at 5:30 p.m. that day.

Unbeknownst to me, while I was pinning the second place award on a volcano presentation created by third-grader Rebekkah Varjabedian (pictured in the photo below, right), daughter of Kathryn Varjabedian of the Research Library (STB-RL), the little girl was nearby anxiously watching in the huge crowd of students and parents who had arrived to view all the science fair projects and to see how well their children had fared.

After pinning up the award, I felt a small warm hand touch my side. Looking down, I saw a little girl pointing up to her award as she asked, "Is that for me?"

I replied, "Yes sweetie that is for you ... you won. Your judge, Gerald, was very impressed with your presentation... and you."

With that, the little girl's eyes started to tear up, as she asked, "Can I hold my award?"

I replied, "Sure sweetie, it's yours. You deserve it; you did a great job!"

The little girl carefully removed her second place award from her presentation and gingerly held it in both hands. She stared at it for several moments and started to cry and sniffle.

All of sudden, she rushed me, wrapped her arms around my waist, and gave me a big hug that nearly knocked me over. As I stumbled to remain standing she said, "Thank you, thank you both! [Gurevitch and award judge Gerald Coriz]," and rushed off presumably to show her mom and dad.

As I watched her disappear into the crowd, I felt a cool wetness on my side. Looking down and holding my shirt outstretched, I noticed two small streaks of wetness where her tears had touched my shirt. As I pondered the two wet patches, for what seemed like an eternity, I realized that it wasn't only my shirt that had been touched by her tears, but my heart as well."

Gurevitch added that the rewarding feeling one gets from such an encounter is hard to explain. "It needs to be experienced."

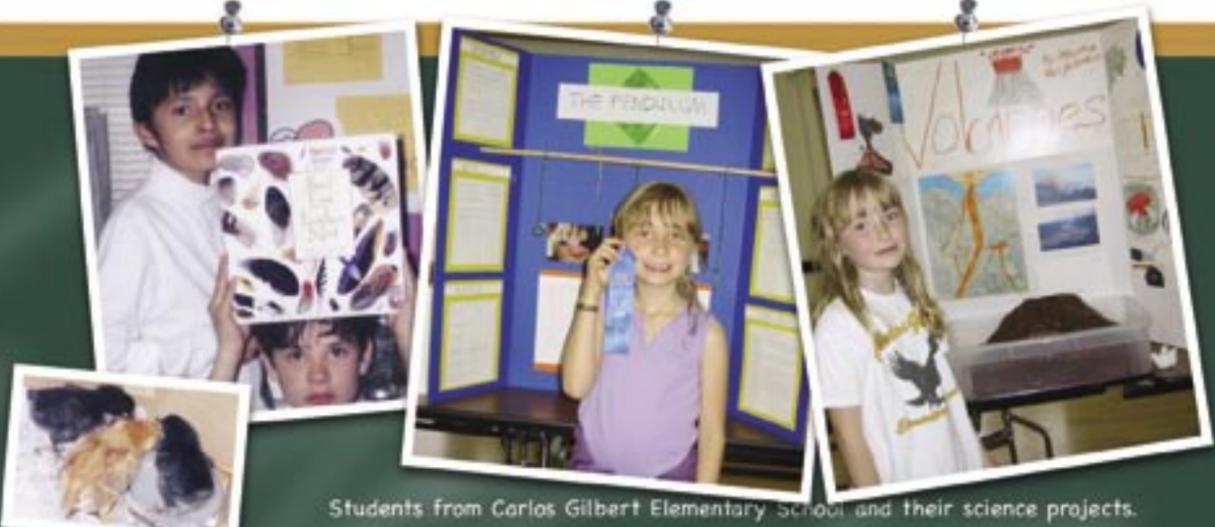
Maybe that is why Gurevitch worked so hard to recruit David Yeamans of Actinide and Fuel Cycle Technology (NMT-11), Debbie Dale of Advanced Nuclear Technology (N-2), David Hobart of Actinide Analytical Chemistry (C-AAC), Jeff Carmichael of Solid Waste Regulatory Compliance (ENV-SWRC), Gerald Coriz of Actinide and Fuel Cycle Technology (NMT-11) along with his wife Marcella Coriz and former Lab Postdoctoral Researcher Ralph Zehnder as volunteer judges. Mark Galassi of Space, Science and Applications (ISR-1) and Jim Warsa of Transport Methods (CCS-4) also participated in the judging process.

After reaping the encouraging benefits of his perspective-altering event at the school, Gurevitch plans on continuing to work with students and strongly encourages employees to take advantage of the 32 hours of community service leave the Lab makes available for math and science education. He noted that it is especially important to have female scientists and engineers volunteer to "show young girls that science is something they can successfully pursue."

On final reflection, Gurevitch summarized the depth of the Carlos Gilbert Elementary students' impact on his life: "There is nothing that has happened in Los Alamos in the 13 years I have been here that compares to my experience [at the school]. It touched my heart. To get satisfaction like that in a day is something we are not used to here in Los Alamos."

Volunteers needed

Volunteers are needed to serve as mentors for a 6th grade class at Santa Clara Day School, in preparing for the school science fair. The fair is scheduled for Dec. 1. Interested volunteers will work with students to help with development and design of science fair projects. The teacher would like to have at least weekly contact with students by e-mail or visits to the classroom. The science categories are behavioral and social sciences, biochemistry, botany, chemistry, computer science, earth and space sciences, engineering, environmental science, gerontology, mathematics, medicine and health, microbiology, physics and zoology. If interested in serving as a mentor, contact Byron Yepa at 5-5430 or byepa@lanl.gov by e-mail or Barbara Tenorio-Grimes at 5-5121 or bgrimes@lanl.gov by e-mail. Yepa and Grimes are part of the Tribal Relations Team in the Government Relations Office (CER-1).



Students from Carlos Gilbert Elementary School and their science projects.

Applying for Science Education and Outreach Activities Community Service Leave

1. Fill out information at top of Form 704, Request for Community Service Time. The form is available online at <http://enterprise.lanl.gov/forms/704.pdf> (Adobe Acrobat required). Form 704 also can be acquired from group office administrative staff or from the Human Resources (HR) Division.
- 2.a. Fill out Part A of Form 704A for elected/appointed positions ONLY. Leave blank if you are not doing elected/appointed positions.
- or--
- 2.b. Fill out Part B by checking the appropriate community service box(es). You need to have an invitation from the sponsoring organization. (Most educational community service would fall under Part B.)
3. Print out the form, include name, sign and date the form in the appropriate boxes.
4. Bring to group leader who needs to print his or her name, sign, and date the form in the appropriate boxes. (HR signs only if elected/appointed positions.)
5. Fax to 5-6871, attention: Science Education Program Office Manager Dave Foster, Education and Student Programs (STB-EPO). The STB-EPO Administrative Assistant Rebecca Duran can be contacted at 5-8899 or at rduran@lanl.gov by e-mail for additional assistance.

For more information, refer to Administrative Policies and Procedures Manual AM 322, Miscellaneous Excused Absences.

Community service requests
In fiscal year 2005, Lab employees
submitted 350 community service
requests.