



# NewsLetter

Week of March 1, 2004

Vol. 5, No. 5

## Krikorian garners 2003 Los Alamos National Laboratory Medal

by Kathryn Ostic

Laboratory Fellow Nerses “Krik” Krikorian was recently honored as the recipient of the 2003 Los Alamos National Laboratory Medal at a ceremony in the Duane Smith Auditorium at Los Alamos High School.

Laboratory Director G. Peter Nanos said Krikorian’s life embodies what the Lab is and more importantly what our country is all about. Nanos also said, “In the short time that I’ve known Krikorian, I’ve had a tremendous amount of respect for his insights. We remain a premier Lab, and he put us on the path to do that.”

The Los Alamos National Laboratory Medal, instituted in 2001, is the highest honor the Laboratory can bestow on an individual or small group.

“Being recognized for the Los Alamos Medal award is an honor I never expected, but one that I accept with great humility,” said Krikorian. “I don’t think we realize [that] in spite of problems we are still a premier lab with a strong defense mission.” Krikorian said the Lab’s ability to attract top-notch people is why he has stayed at Los Alamos for six decades.

Krikorian, who met his wife Katherine “Pat” in 1946 and married in 1948, credits his wife as being a significant contributor to his successful career in national security. Krikorian also said his mentors helped him with patience, confidence and skills to cope with successes and failures.

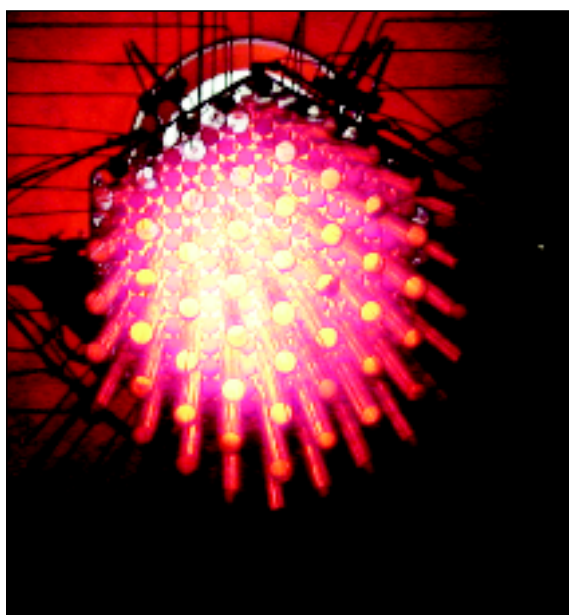
Several Laboratory employees spoke on behalf of Krikorian’s many accomplishments throughout his



Laboratory Fellow and Associate Nerses “Krik” Krikorian talks with Laboratory Director G. Peter Nanos after receiving his 2003 Los Alamos National Laboratory Medal last month. Photo by LeRoy N. Sanchez

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## Los Alamos leading research to power planned journey to Jupiter’s icy moons



Mockup of 100 kilowatt reactor core for space power undergoes non-nuclear electrical testing. Los Alamos is working with NASA Marshall Space Flight Center to research reactor designs for a planned mission to the icy moons of Jupiter. Photo courtesy of NASA Marshall Space Flight Center

by Jim Danneskiold

A proposed U.S. mission to investigate three ice-covered moons of Jupiter will demand fast-paced research, fabrication and realistic non-nuclear testing of a prototype nuclear reactor within two years, says a Laboratory scientist.

The roots of this build-and-test effort have been under way at Los Alamos since the mid-1990s, said David Poston leader of the Space Fission Power Team in Nuclear Design and Risk Analysis (D-5).

NASA proposes using electrical ion propulsion powered by a nuclear reactor for its Jupiter Icy Moons Orbiter, an element of Project Prometheus, which is scheduled for launch after 2011. However, the United States hasn’t flown a space fission system since 1965.

Poston discussed technical requirements for such a fission reactor in two presentations at a Space Technology and Applications International Forum in

Albuquerque. Los Alamos was a co-sponsor of the forum. Poston discussed “The Impact of Core Cooling Technology Options on JIMO Reactor Designs” and “The Impact of Power and Lifetime Requirements on JIMO Reactor Designs.”

Los Alamos is leading reactor design for the Jupiter Icy Moons Orbiter mission, which would orbit Callisto, Ganymede and Europa to study their makeup, possible vast oceans beneath the ice, their history and potential for sustaining life. The Laboratory is responsible for such key reactor technologies as nuclear fuel, beryllium components, heat pipes and diagnostic instruments, as well as nuclear criticality testing of development and flight reactors.

“Nuclear power has long been recognized as an enabling technology for exploring and expanding into space, and fission reactors can offer unprecedented power and propulsion capabilities,” Poston said.

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Pam Rogers of Waste Disposition Program (RRES-WD) is a "foster mom" for adult dogs — working through a volunteer program sponsored by the Española Animal Shelter. . . .Page 8



FROM THE TOP

# Partnership between Lab, NMSU and UC creates collaborative opportunities

## Agreement important for recruiting, retention

The recent signing of a memorandum of understanding between the Laboratory, New Mexico State University and the University of California is a "win-win" for all the parties, according to Laboratory Director G. Peter Nanos.

Nanos and William Flores, interim president of New Mexico State University, signed a memorandum of understanding Feb. 16 at a ceremony in the Rotunda of the State Capitol in Santa Fe. The memorandum of understanding provides opportunities for research, education and recruiting in areas of strategic importance to the state, California and the nation.

This agreement signifies another successful partnership with New Mexico's state universities, said Nanos.

"These partnerships allow New Mexico universities to participate in the great science for which Los Alamos is known, and they allow the Laboratory to potentially recruit more of its future scientists from the great state of New Mexico. This is a win-win situation for all parties involved."

Research areas covered under the MOUs are modeling and simulation — such as predictive science, decision making and engineering design — and security, including applications to homeland security and homeland defense, environmental security, sensor and detection technology and information intelligence.

The MOUs are beneficial to all institutions involved. For NMSU, they provide research opportunities for students and faculty to participate in innovative research collaboration with the Laboratory. For UC and the Laboratory, the MOUs provide an opportunity to enhance research capabilities in areas of strategic importance to the Laboratory's national-security mission as well as an opportunity to create a pipeline of NMSU students who may pursue research careers at the Laboratory or with other high tech industries and organizations throughout New Mexico.

The University of California is providing \$500,000 a year out of the fee it receives for managing the Laboratory to support the efforts. Support will continue at least until the end of UC's current contract to operate the Laboratory.

"These MOUs demonstrate UC's recognition that strategic partnerships with New Mexico academic institutions help the Laboratory continue its excellence in fulfilling important national security and national defense missions," added Robert Foley, UC's vice president for laboratory management. "The opportunity to work with NMSU and other New Mexico institutions allow us to tap into the valuable research and educational resources located in New Mexico."

Also last month, the State House of Representatives and Senate introduced memorials in the Legislature congratulating the Lab, NMSU and UC for signing the memorandum of understanding.

Last October, the Laboratory signed a memorandum of understanding with University of New Mexico President Louis Caldera that focused on collaborative research projects in bio-science, materials science and computer science, among others.



Laboratory Director G. Peter Nanos, talks with William Flores, left, interim president of New Mexico State University, and John Birely, UC associate vice president for laboratory programs at the State Capitol in Santa Fe. Behind Birely is Richard Hills, interim vice president for research at New Mexico State University. Photo by LeRoy N. Sanchez

## Krikorian receives ...

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long and distinguished career. Terry Hawkins of the Director's Office (DIR) said, "Old souls never die, they just fade away. This is what I thought *before* meeting Krikorian. He's the human equivalent of the energizer bunny; he keeps going and going — 61 years later. Let's not talk about fading away as he still finds fulfillment in making the world a safer place." Hawkins also said that Krikorian is viewed as a legend by younger staff at the Lab.

A pioneer in many national security programs dealing with the nation's nuclear weapons, Krikorian holds six patents and is the author of myriad analyses and technical assessments that range from laser isotope separation; high-temperature reactor materials; directed-energy nuclear weapons and nuclear weapons testing; and arms control, counter-intelligence and nonproliferation.

Officially retired from the Lab in 1991, Krikorian continues his work as a Laboratory Fellow and Associate and as a mentor to many scientists and researchers.

The award ceremony concluded with Nanos saying, "People think that when you get an award the individual recognized is honored. Quite frankly, the institution also is honored. The Los Alamos Medal does this institution a great honor. Krikorian is among a list of prominent people, and the world will say 'yes' [the Lab] is a quality institution."

## Los Alamos 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](mailto: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.

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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.

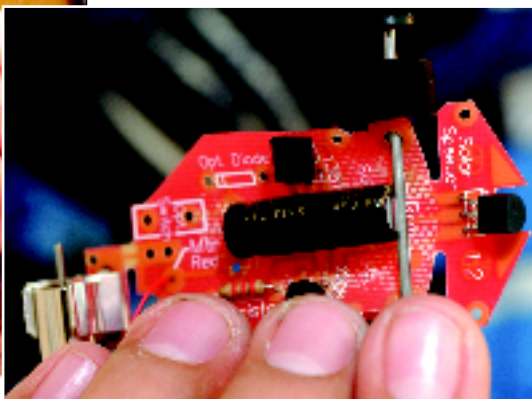


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## Santa Clara Pueblo students learn about math, science through robotics

*Diandra Chavarria, a Santa Clara Pueblo sixth-grade student, works on her "Solar Speeder" car made out of electronics parts at a recent workshop at Santa Clara Pueblo Day School. Sixteen students took part in the workshop, coordinated by the Laboratory's Tribal Relations team in the Government Relations Office (GRO), Nuclear Materials Technology (NMT) Division and the Education Program Office (STB-EPO). "The objective is to teach students about electronics in a hands-on way," explained Joe Vigil of STB-EPO. The cars take about two hours to build and students are encouraged to "road test" and troubleshoot their cars, which provides an additional educational exercise. "The ultimate goal is to get these students into a pipeline for math and science. We will encourage them to stay in school and direct them toward internships with the Lab and toward going to college and beyond," Vigil said. "We're trying to lay the groundwork so they can be the next generation of scientists and engineers at the Laboratory." Photos by LeRoy N. Sanchez*



# CREM reduction project under way

by Kevin Roark

The recent incident involving an inventory discrepancy with several individual items of Classified Removable Electronic Media (CREM) has prompted the Laboratory to again look seriously at the issues surrounding the use, protection, storage and destruction of CREM, with the goal of reducing the overall amount of CREM Labwide and eliminating CREM to every extent possible.

The Laboratory has begun a 90-day program that aims to have solved, as much as

possible, the issues surrounding CREM by April 5.

"Last December's incident showed that the Laboratory is keeping track of far more CREM than we really need to perform our national security mission," said Kevin Leifheit, Security and Safeguards (S) Division deputy leader. "Obviously, one of the best ways to reduce the likelihood of losing track of CREM is to reduce the amount of media, which means finding better ways to get the job done without having to rely on CREM. We've got to improve the control of media by consolidating smaller items, such as floppy disks, onto larger capacity disks, destroying what can and should be destroyed, moving to media-less computing environments where appropriate and constantly exploring new technologies and systems."

According to Leifheit, during recent "no notice" spot checks S Division personnel found some very good systems across the Laboratory. "Nuclear Materials Technology (NMT) Division has a particularly sound system, the CREM environment at Technical Area 55 is outstanding, clearly a lot of thought and effort has gone into their program — and they do a great job of controlling a lot of media in a very demanding operational environment," Leifheit said. "Material Science and Technology (MST) Division is another good example; they run their system like a library with folks checking items in and out as needed. We want to take these examples of successful CREM management and apply them across the Laboratory."

The issue of worker productivity is central to establishing and maintaining a good system of CREM controls. Decentralized computing systems have tremendous advantages in terms of an employee's ability to get work done efficiently, according to Leifheit, but there can be disadvantages in terms of increased security concerns. "People simply do not appreciate the operational complexity of controlling CREM at this Laboratory," he said. "The sheer volume of classified information is astounding, and it flows like a river

between organizations engaged in the national security mission, both inside and outside the Laboratory.

"Keeping tight control of the information and the media, while ensuring the communication and collaboration that makes this Laboratory what it is, can be a very difficult challenge. Our job is to make it easier for the staff to do their job securely," Leifheit confirmed. "But as past incidents clearly point out, we have to get smarter about how we handle CREM, we need to find better systems to make the task less prone to human failure, and we need to make sure that employees give security the attention that it needs. Trained and dedicated employees are our best line of defense."

The 90-day project plan began in December with establishing a working definition of what constitutes CREM and appointing points of contact in Laboratory organizations that deal with CREM. In January the plan called for defined metrics for tracking the reduction of CREM, the identification of acceptable reduction and mitigation options, completing institutional guidance on the acceptable options and an overall organizational survey that identifies CREM ownership and location. By this month, the plan calls for decisions on what CREM cannot be eliminated and an approval process that allows that CREM to remain in use. Around mid-February, organizations submitted their CREM mitigation plans, and a review and approval of the plans will follow. The plan also calls for the implementation of both short- and long-term CREM mitigation plans.

"The Laboratory's Central Destruction Facility, which was down for a period of time, is now up and partially operational, with additional actions bringing the operation to full capacity in the near future" said Leifheit. "By mid-April, we hope to have greatly reduced the amount of CREM through destruction as well as consolidation to larger-capacity storage and to have installed greater controls and limited access to the CREM that remains."

## Lab accepting nominations for Fellows prizes for research, leadership

The Laboratory is accepting nominations for Fellows prizes for research and leadership.

The Fellows Prize for research recognizes high-quality investigations in science or engineering by Laboratory technical staff members and encourages publication in appropriate journals, books or reports. Research must have been performed at the Laboratory and have been published within the last 10 years.

The Fellows Prize for leadership recognizes the immense value of leadership in science and engineering at the Laboratory, and stimulates the interest of talented young staff members in developing the skills and making the personal sacrifices necessary to become effective leaders.

An all-employee memo from Laboratory Director G. Peter Nanos summarizes eligibility and nomination guidelines. The deadline to submit a nomination for the Fellows prizes is March 31.

To read the all-employee memo, go to [int.lanl.gov/memos/alldist/LANL\\_ALL583.PDF](http://int.lanl.gov/memos/alldist/LANL_ALL583.PDF) online (Adobe Acrobat Reader required).

# LA BUS keeps Los Alamos moving



by Edwin Vigil

Has all the snow made you a little tired of scraping the windshield and waiting for the car to warm up as you steady your nerves for the drive to and from work? If so, help is just around the corner and a bus stop away.

With bus routes covering most of Los Alamos as well as commuter service to and from White Rock, for a small fee Los Alamos Bus System (LA BUS) can get you from home to the office and back with a minimum of frustration and effort.

Convenience, safety and peace of mind all add up to reasons for taking the bus and avoiding the rush-hour blues. With safety being the cornerstone, all drivers are required to have a valid commercial drivers license and must pass a drug test before being allowed to drive for LA BUS.

"I ride the bus year round from White Rock to my lab in Technical Area 3 and find it very relaxing and a wonderful way to visit and network with others on the bus," said Becky Cordova of Space Instrumentation and Systems Engineering (ISR-4), who also is the board secretary for LA BUS. "It's also ideal for summer students working at the Lab who don't have transportation."

Business downtown, lunch with a friend or a little lunch-time shopping? LA BUS can get there as well with its noon-time shuttle service from various Laboratory technical areas to downtown Los Alamos.

"It gives Lab employees a chance to run downtown for lunch or shopping without having to worry about parking or losing their parking space at TA-3," said Cordova.

LA BUS also can help Lab workers get around TA-3 with Lab shuttles from outlying parking areas to offices and

laboratories within the TA-3 area, said Cordova.

"We have shuttle service at TA-3, with four buses running between parking lots for four hours, from 6:45 to 9 a.m. and from 4:45 to 6 p.m. each work day," said, Tim Mahan, LA BUS manager.

Providing public transportation in Los Alamos and White Rock for almost a quarter of a century, LA BUS is a nonprofit 501(3)(c) commuter bus system serving Los Alamos County.

"Our funding comes from the county, the Laboratory and a state transportation grant," said Mahan. "The funding along with the fares we collect help us pay our drivers and provide them with health-care coverage and other benefits that make driving for us very attractive."

For more information about LA BUS, including bus fares and schedules, go to [www.labus.org/](http://www.labus.org/) online.

## Los Alamos ...

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The JIMO mission would demand a safe, low-mass, high-temperature reactor that can be developed and qualified quickly, can operate reliably in the harsh environment of space for more than a decade, and can meet a wide range of mission and spacecraft requirements, he said.

A science mission to explore the icy Jovian moons would require kilowatts of electrical power for the scientific payloads and up to 100 kilowatts of electricity for ion propulsion to propel the spacecraft to Jupiter, maneuver within the Jovian system and allow rendezvous with the moons. The reactor also would power advanced science experiments and systems to send data to Earth at high rates.

Despite the lack of U.S. space reactor research in recent decades, Los Alamos has continued to examine technologies and concepts for a rapid and affordable development program. Working with NASA's Marshall Space Flight Center, Los Alamos has resolved many hardware issues at the component and system level.

Los Alamos and NASA-Marshall researchers, working with colleagues from NASA's Jet Propulsion Laboratory and Sandia National Laboratories, have built successively more powerful nuclear electric propulsion reactor components, including a 30-kilowatt reactor core without fuel, one-third of a 100-kilowatt system (core plus heat exchanger) and a single module suitable for a 500-kilowatt reactor core. Extensive non-nuclear testing of these and other components continues.

Most researchers have agreed on the best fuels and reactor construction materials for the proposed fast-spectrum, externally controlled JIMO reactor. The major design choice that remains is how best to transport power from the reactor core to the power conversion system.

Los Alamos and NASA are examining three primary options for core cooling: pumped liquid-metal sodium or lithium; sodium or lithium liquid metal heat pipes; and inert helium or helium-xenon gas. Many of these options have been tested for decades for terrestrial reactors, but the reactor for JIMO would be unique, Poston said.



## Beware of slips and falls in winter

When we drag water and ice into the office on our feet and clothing, the danger of slipping and falling increases. It's one of the special safety hazards of winter and inclement weather, but also one that is easily preventable with awareness and foresight. Here are a few tips to help avoid this common winter safety risk.

Be prepared; watch the local weather news. If traveling, check out a national forecast to make sure you have the clothing and proper footwear for the weather at your destination. Knowing what to expect is essential for proper preparation.

### To cut down the risk of slipping on wet indoor surfaces

- shorten your stride to maintain a center of balance;
- walk with feet pointed slightly outward, creating a stable base;
- make wide turns at corners;
- post signs to warn of wet areas;
- clean up water that drips from clothing and shoes; and
- be careful of wet shoes on a dry floor; they can be just as slippery as dry shoes on a wet floor.

### The risk of slipping outdoors in inclement weather can be reduced if you

- slow down to give yourself time to react to a change in traction;
- wear slip-resistant shoes or over-shoes and carry your work shoes; and
- wear sunglasses when outdoors in ice and snow to help see possible hazards.

Remember, proper footwear is important. Wear slip-resistant shoes appropriate for the job. Some have special sole patterns specifically engineered for slippery work areas. Or, use abrasive strips to increase traction.

# Trehwella talk addresses pathogen detection for biodefense

by Nancy Ambrosiano



Jill Trehwella

In spite of the developments in both DNA technologies and antibody-based detection strategies, the reality today is that infections are not detected until people get sick, according to Bioscience (B) Division Leader Jill Trehwella.

Trehwella spoke at a proteomics seminar at the annual meeting of the American Association for the Advancement of Science in Seattle. The session, "Networking Proteins in Biology and Medicine," was held Feb. 14.

In Trehwella's talk, titled "Detection of Pathogens in Biodefense," she notes that "the critical requirements for pathogen detection in biodefense applications include speed, accuracy and maximum information to

guide response." Trehwella calls on researchers to provide "robust, effective, automated detection systems" for biodefense.

The AAAS symposium focused on the application of proteomic techniques to biological problems. Proteomics describes the systematic separation, identification and characterization of the proteins present in a tissue or other biological sample. By comparing the proteins in samples from individuals affected by a particular disease with those

present in healthy individuals, researchers can identify those proteins that are potentially related to that disease.

Trehwella also is program manager for the Department of Energy Biological and Environmental Research programs at the Laboratory. Trehwella received her bachelor's degree with first class honors in physics and applied mathematics and a master's degree in physics from the University of New South Wales, Australia. Her doctorate is in chemistry from the University of Sydney, Australia.

Trehwella is a Fellow of the American Association for the Advancement of Science, as well as having been awarded the Laboratory Fellows' Prize. She was elected secretary of the Biophysical Society and has served on numerous national and international committees, including the NIH Division of Research Grants, Molecular and Cellular Biophysics Study Section, the American Heart Association Fellowship Peer Review Subgroup and the Biophysical Review Panel, National Science Foundation. She has given about 100 invited talks at international and national meetings, in academic departments and national laboratories on her research, and on science and technology approaches and national needs with respect to addressing biological threats.

She has been at Los Alamos since 1984 and has held various science leadership and management positions before being named Laboratory Fellow in recognition of sustained outstanding contributions to science and technology.



## C Division periodic table more kid-friendly

by Josh Smith

The Chemistry (C) Division's periodic table — available on the division's external Web sever — is being replaced with a completely revamped, souped-up, more kid-friendly version. To view the newly redesigned site, go to [periodic.lanl.gov/](http://periodic.lanl.gov/) online.

Since the early 1990s, C Division has maintained a periodic table of the elements. The table, which is intended as a resource for middle- and high-school students, has been successful beyond all expectations, according to Nick Degidio, acting deputy group leader of Chemistry Operations (C-OPS) and one of the pioneers of the project. It consistently receives in excess of 60,000 visits per day from chemistry-curious surfers from around the globe, added Degidio.

Creating the new table took more than a year and involved making new illustrations for each element, animations and other features intended to entice today's Internet-savvy kids into the fascinating world of chemistry, said Mollie Boorman, a student in C Division. Because so many kids are using the site, the table's design features and usability are pivotal to its success as a reference tool and have much more significance than a mere face-lift. The new site is the work of Boorman. The table was originally created by Robert Husted, a graduate

research assistant who was then working in the Computer and Computational Sciences (CCS) Division.

As a community outreach effort, the table has been very successful, and in 2001, C Division received an award of appreciation from the Department of Energy educational site, Kidzone, for maintaining it. Currently, a Google search on the words, "periodic table" brings up the Los Alamos National Laboratory table as the second choice, a testament to its recognition and use, said Degidio.

Following are recent usage statistics from C Division's entire external server. More

than 95 percent of the traffic on the server relates to the periodic table. Figures in parentheses refer to the seven-day period ending Jan. 22 at 8:29 a.m.

- successful requests: 5,027,546 (all requests for pages)
- average successful requests per day: 583,138
- failed requests: 148,716 (hack attempts)
- distinct hosts served: 57,432.

C Divisions' Web staff always are seeking information to add to the periodic table and value user comments and suggestions. Contact Josh Smith of C-OPS at 5-9846 with comments or for more information.



**During inclement weather, dial UPDATE at 7-6622 or 1-877-723-4101 (toll free) to find out about delays or closures at the Lab.**



### Gurulé-Sandoval's achievements highlighted in magazine

**M**arcella Gurulé-Sandoval of Security Integration (S-2) is an undergraduate student working toward a bright future. Gurulé-Sandoval recently was highlighted in an article in the New Mexico Woman "Young Women of Promise" magazine for her sense of commitment to her community of Española.

"The young women lead, inspire and give hope in a time when many are feeling somewhat disheartened and discouraged," said Jill Duval, founder and publisher of New Mexico Woman.

"The recognition that the magazine provided me aids my future networking prospects and helps with opportunities to meet people that can help me accomplish my dreams for the future," said Gurulé-Sandoval.

Gurulé-Sandoval began working at the Lab as a high-school student in Emergency Management and Response (S-8) performing logging tasks, working the status boards, badging, doing inventory, acting as a runner and completing various administrative jobs. Gurulé-Sandoval currently works for the training communications team logging in annual computer security-refresher training and employee comments for the Lab.

"Gurulé-Sandoval's personality, attitude, willingness to learn new things and do the right thing no matter what the

circumstances make for an enthusiastic, hard-working employee," said former supervisor Gerald Ramsey of S-8.

Gurulé-Sandoval is a 2003 graduate of Española Valley High School, a former student body president, four-year honor society member, American Junior Red Cross president and cheerleader. She is a freshman at the University of New Mexico Los Alamos branch campus majoring in psychology with an emphasis in child psychology.

"I'm proud to be from Española, and I want to represent my city as well as I can as a future leader of tomorrow. It also has been a great opportunity for me to work at a national laboratory with a diverse group of people who work together to get jobs accomplished," said Gurulé-Sandoval.



### Steinhaus appointed deputy cabinet secretary of education

**K**urt Steinhaus of the Education Program Office (STB-EPO) has been appointed as the deputy cabinet secretary of education for the New Mexico Department of Education.

"This is a great opportunity to have an impact on education policies in our state and to provide the Laboratory with positive exposure as a corporate neighbor in New Mexico," Steinhaus stated.

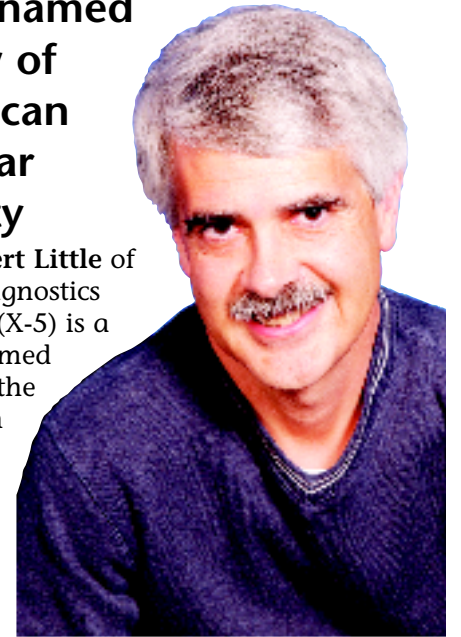
Steinhaus came to the Laboratory's Science and Technology Base Programs (STB) Office in 1999. He said his experience at the Lab has enabled him to fulfill his appointed position to the fullest.

"Having the experience of running the student and education program at Los Alamos has given me a completely new perspective of what changes need to be made for our students to compete for technical jobs locally and nationally," he said.

Steinhaus has a master's degree in computer science from the University of Oregon and a doctorate in education leadership and organizational learning from the University of New Mexico.

### Little named fellow of American Nuclear Society

**R**obert Little of Diagnostics Methods (X-5) is a newly named fellow of the American Nuclear Society. The ANS honored Little for his outstanding



contributions to the field of nuclear science and technology. Little has been an ANS member for more than 20 years. Little's work has increased the computation capabilities of individuals doing research in many of the diverse applications of nuclear science and technology, states a recent ANS news release. "Little's efforts have benefited the design of nuclear applications ranging from medical radiation therapy to nuclear oil-well logging to space shielding," according to the release.

Little, who has been with the Lab since 1974, received his bachelor's degree in physics from Cambridge University and his doctorate, also in physics, from Stanford University.

ANS bestows the fellow designation on members whose research, invention or leadership has provided significant impact in one or more disciplines of nuclear science and engineering. It is a not-for-profit international scientific and education organization.

### In Memoriam

#### Christie Morrison

Christie Morrison died Feb. 1 at her Santa Fe home. She was 48.

Morrison worked in Modeling, Algorithms and Informatics (CCS-3). She came to the Laboratory in 1984. Her husband is John Morrison, Computing, Communications and Networking (CCN) Division leader.

Morrison earned a bachelor's degree in computer science and mathematics from Nicholls State University; and master's and doctoral degrees in computer science from the University of Southern Louisiana.

She also is survived by her parents, Leonce and Shirley Davis of Severna Park, Md.; sister Downie Codd and husband Tom of Severna Park, Md.; and other relatives.



Warren "Pete" Miller

### Laboratory retiree Miller receives NSBE distinguished engineer award

**L**aboratory retiree Warren "Pete" Miller is the 2004 Distinguished Engineer of the National Society of Black Engineers. Miller will receive a "Golden Torch" award at the advocacy group's 30th annual convention this month in Dallas.

Miller most recently was a subcontractor at the Laboratory, consulting on various projects out of the Director's Office. He is now working outside the Laboratory as a consultant on nuclear energy policy and national laboratory governance.

A graduate of the United States Military Academy at West Point, Miller came to Los Alamos in 1974 and retired in 2001. He earned his bachelor's degree in engineering sciences from West Point and a doctoral degree in the same field from Northwestern University.

In 1996, Miller was elected to the National Academy of Engineering.

"I am honored and humbled by this selection," said Miller. "NSBE has honored some fantastic people as distinguished engineers, and I am excited to be listed among them. I want to thank the Laboratory and those individuals who wrote letters of support on my behalf."

Miller was nominated for the award by Don Cobb, associate director for threat reduction.

The National Society of Black Engineers is the largest student-managed organization in the country dedicated to raising the profile of African American engineers.



Jeff Barber



James Bielenberg



Crystal Densmore



Bryce Tappan

## New postdoc program for national science and defense programs

by Judy Goldie

The Agnew National Security Postdoctoral Fellows — named for Harold Agnew, the Laboratory's third director — is a new Laboratory program sponsored by the Threat Reduction (TR), Weapons Engineering and Manufacturing (WEM) and Weapons Physics (WP) directorates that aims to bolster expertise in critical-skills areas and provide partnering and mentoring opportunities that will benefit the Lab's future work force. The program, recently renamed, previously was known as the National Security Postdoctoral Fellows.

The first postdocs in the program are Jeff Barber of Materials Dynamics (DX-2), James Bielenberg of Weapons Materials and Manufacturing (ESA-WMM), Crystal Densmore of Applied Chemical Technology (C-ACT), Bryce Tappan of DX-2, Wendy Vogan of Neutron Science and Technology (P-23), Heather Volz of Los Alamos Neutron Science Center Division Office (LANSCE-DO) and Nuclear Materials Science (NMT-16), Cindy Welch of the Manuel Lujan Jr. Neutron Scattering Center (LANSCE-12) and John Wohlbiel of High-Power Microwave, Advanced Accelerator and Electrodynamical Applications (ISR-10).

Barber, sponsored by ADWP, focuses his research on "Synthetic Approach to Tetrahedral Nitrogen"; Bielenberg, who is sponsored by ADTR, focuses his research on "Percolation Limits, Large Scale Structures" and "Physics of Concentrated Multiphase Systems"; Densmore, sponsored by ADWEM, focuses her research on "Polymer Irradiation and Accelerated Aging"; Wohlbiel, sponsored by ADTR, focuses his research on "Traveling-wave Tube Bandwidth and Linearity Study."

The following four postdocs also are sponsored by ADWP: Tappan, whose research is on "Towards a New Class of Energetic Material: Synergism of MIC and High Nitrogen Materials"; Vogan's is on "Surface Properties of Matter Under Perturbation"; Volz' is on "Neutron Scattering with Highly Absorbing Materials"; and Welch's is on "Structure of Polymer Composites under Shear."

Programs in all these directorates contribute to dissuading and deterring possible threats, particularly threats from weapons of mass destruction, and research opportunities for those chosen as Agnew/National Security Postdoctoral Fellows range from developing technologies to detect and defeat terrorist to inventing cutting-edge science to support and equip conventional military forces.

Emphasis includes a variety of programmatic efforts such as conventional weapons technologies; defense advance concepts; defense sensor and ultra-sensitive detection technologies; defense environmental technologies; high-performance computing; chemical and biological defense; modeling, simulation and analysis application; and quantum information and cryptography.

The TR Directorate agreed to sponsor one Agnew Postdoctoral Fellow appointment; ADWEM, two; and ADWP, four appointments annually.

Agnew served in many positions at the Laboratory, having started his career at the Lab during the Manhattan Project. He was a staff member in the former Experimental Physics (P) Division and was leader of the former Weapons Engineering (W) Division. Agnew also was the science adviser to the NATO supreme allied commander in Europe and received the E.O. Lawrence Award for his contributions to the development of nuclear weapons and for his outstanding success working with the armed services to ensure the maximum safety and effectiveness of atomic weapons systems. In addition, Agnew also received the NASA public service award for his service as a member of the Aerospace Safety Advisory Panel and was named to the General Advisory Committee of the United States Arms Control and Disarmament Agency.

The new postdoctoral fellows were chosen during the quarterly postdoctoral candidate-selection process, according to the same guidelines as all other postdoctoral appointments. Beginning this year, candidates only will be considered at one quarterly meeting annually — the August quarterly meeting. Thus, the next review and selection of candidates for these appointments will be during the August 2004 quarterly meeting. The appointments are for two years.

For more information about these appointments — or other postdoctoral appointments — contact Maryanne With at 5-5306 or write to [with@lanl.gov](mailto:with@lanl.gov) via e-mail.



Wendy Vogan



Heather Volz



Cindy Welch



John Wohlbiel



## Cold noses and warm hearts: Fostering homeless dogs

by Rhonda Rogers

**P**am Rogers of the Waste Disposition Program (RRES-WD) is a “foster mom” for adult dogs — working through a volunteer program sponsored by the Española Animal Shelter. She takes a dog, abandoned or surrendered to the shelter, into her home and feeds and cares for it. She also provides socialization and basic obedience training needed to enhance the dog’s chances of being adopted. Rogers also takes the dog to weekly Saturday adoption events in Los Alamos, usually just outside Starbucks on Central Avenue from 11 a.m. to 2 p.m., and in Santa Fe, usually at PetCo on Cerrillos Road from 1 to 3 p.m. She also networks with colleagues, former colleagues and friends who have dogs or who know dog owners to try to find the dog a good home. For these events and others, the Española and Los Alamos animal shelters join in adoption and special events, but notes Rogers, the counties keep the areas of coverage separate for legal reasons. If you find a dog in Española, for example, you cannot turn it in at the Los Alamos shelter and vice versa, she said.

Rogers’ entire household is involved in fostering a dog. Geoff Miller of Transuranic Certification (RRES-CE), Rogers’ significant other, and his son Nick of Desktop Computing (CCN-2), who recently has been assigned to Risk Reduction and Environmental Stewardship (RRES) Division, actively participate in caring for the foster dogs. They have volunteered in this capacity for about three years and have fostered and placed about 15 dogs into loving homes, mostly in Los Alamos. Recently, because of severe overcrowding at the Española Animal shelter, they had three foster dogs staying with them that were available for adoption. Two of the three have been adopted.

Rogers explained, “More than 2,000 dogs — and an equal number of cats — enter the shelter each year. Feeding and providing veterinary care for that many animals is a tremendous challenge and requires a lot of donations.” And volunteers always are needed, too, she emphasized.

The shelter can be contacted at 505-753-8662, or for more information about adoption, donations or how to volunteer, go to [members.petfinder.org/~NM08/index.htm](http://members.petfinder.org/~NM08/index.htm) online.

*“Foster mom” Pam Rogers of the Waste Disposition Program (RRES-WD) plays with some four-legged friends, from right to left, her own dog Alion and three foster dogs, Sassy, Sam and Sally (laying on the floor). Both Sam and Sally have been adopted, but Sassy still is being fostered by Rogers. Sassy is mostly beagle with some corgi. Photos courtesy of Rogers*



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