

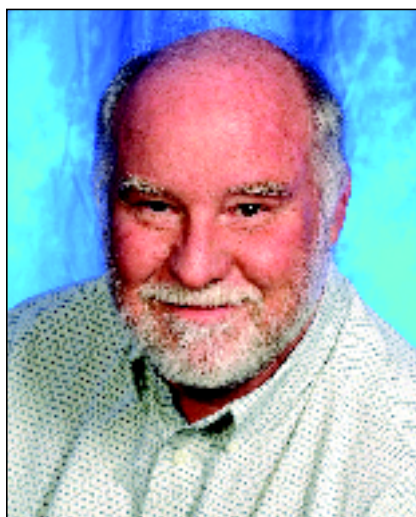
NewsLetter

Week of Oct. 13, 2003

Vol. 4, No. 21



Carol Burns



Robert Hixson



Nicholas King



Arthur Voter

Seven honored as Laboratory Fellows

by Todd Hanson

Seven technical staff members have been named Laboratory Fellows, the Laboratory's highest scientific honor.

Laboratory Director G. Peter Nanos announced the seven recipients. They are **Carol Burns** formerly of the Chemistry (C) Division and currently on extended assignment in Washington, D.C.; **R. Brian Dyer** of the Bioscience (B) Division; **Robert Hixson** of the Dynamic Experimentation (DX) Division; **Quanxi Jia** of the Superconductivity Technology Center (MST-STC); **Nicholas King** of the Physics (P) Division; and **Michael Nieto** and **Arthur Voter**, both from the Theoretical (T) Division.

The honor is given yearly to technical staff members who have sustained a high level of excellence in programs important to the Laboratory's mission, made important scientific discoveries that lead to widespread use or been recognized as leaders in their fields both within and outside the Laboratory.

"I'm pleased to recognize these distinguished members of our technical staff," said Nanos. "They are representative of the many dedicated men and women working at Los Alamos who serve our nation and the world with technical and scientific excellence."

Carol Burns

Burns was made a Laboratory Fellow for her seminal contributions to transition metal and actinide coordination and organometallic chemistry. Burns has a number of "firsts" that have resulted in her international reputation, including the preparation and characterization of the first uranium monoxo compounds and first reactive uranium imido complexes and uranium phosphinidenes. The 2003 Fellows Prize recently recognized the importance of this work and its impact on the field of actinide chemistry (see the week of Jan. 20, 2003, Los Alamos NewsLetter).

R. Brian Dyer

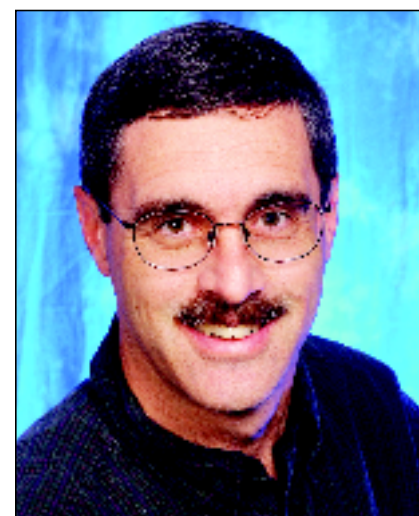
Dyer was named Laboratory Fellow for having attained international recognition in the application of time-resolved vibrational spectroscopy to protein folding, the functional dynamics of redox metalloproteins and electron-transfer reactions of inorganic model compounds. Dyer's impact on these fields is perhaps most notable in his work on protein folding, in which he developed techniques that now allow for the study of early events in protein folding.

Robert Hixson

Hixson was named for his exceptional basic and applied research in shockwave physics. He has spent the last two and a half decades focusing on experiments to determine the equations of state and constitutive properties of materials under extreme conditions. His work on the shock response of plutonium has been an essential element of stockpile stewardship, and he played a leading role in the design and implementation of a gas-gun capability for plutonium at Technical Area 55.

Quanxi Jia

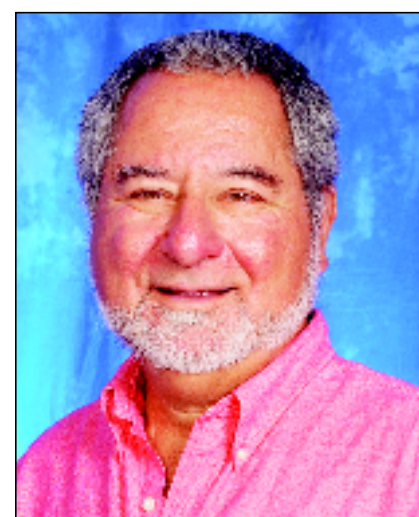
Working in the areas of superconductivity, magnetic materials and thin-films, Quanxi Jia has conducted pioneering research in complex oxide thin-film growth and is a recognized leader in the field of electronic-device fabrication. His contributions include the



R. Brian Dyer



Quanxi Jia



Michael Nieto

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Four Green Zia awards garnered by the Lab

Four Los Alamos National Laboratory divisions received the fifth annual 2003 Green Zia Environmental Excellence Program recognition for their efforts in pollution prevention at a ceremony recently at the Santa Fe Hilton Hotel.Page 5



A love affair with music

Frances Castellano of High Performance Computing Systems (CCN-7) believes that "music can be a big part of anyone's life." This

easily can be seen and, for that matter, heard with every mellow melody Castellano produces and the soft, slow strumming of her guitar.Page 8

FROM THE TOP



Members of the University of California Community

Oct. 1

On my last day as president of the University of California, I want to extend my heartfelt appreciation and best personal wishes to all of you.

I am honored to have had the opportunity to be a part of this university community. Your skill, energy and commitment have preserved this institution as a place where the very best students from all walks of life get a first-rate education, where cutting-edge research improves our economy and our understanding of the world around us and where community engagement is deep and substantive. There simply is no institution like the University of California anywhere in the world, and I hope you take pride in what you have helped to build here. ...

I have submitted a formal set of farewell remarks to the Board of Regents, and I invite you to read those remarks at <http://www.ucop.edu/pres/speeches/farewellremarks.html>. They expand on my views about the University, its challenges for the future, and its tremendous accomplishments for the people of California, the nation, and the world. ...

Fiat Lux,
Richard C. Atkinson, president



Oct. 2



It is with great pride in the accomplishments of the University of California and great excitement about this institution's future that I assume the presidency of the UC system today.

This is the premier university in the world, a place where the very best come to study, to work and to learn. It also is an institution that has a deep impact on the society around it. California today is the envy of the world — a testament to the success of innovation, diversity, tolerance, risk-taking, and entrepreneurship. Much of that success simply would not be possible without the University of California and its contributions to education, health care, job creation and an improved quality of life.

This is a great institution because of the greatness of its people. ...

Over the coming months, I will be traveling throughout California — and to New Mexico, home of the Los Alamos National Laboratory — to meet firsthand with the many members of the University of California community. ...

In the meantime, I will be holding a series of three "Web chats" in the coming weeks — focusing separately on faculty and staff, student and alumni issues — as I want to hear from you about your concerns, your ideas and your dreams for UC. The chat schedule and set-up can be found at <http://www.universityofcalifornia.edu/newpresident/chatinvite.html>. ...

Sincerely,
Robert C. Dynes, president

Seven honored ...

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development of high-performance Josephson Junctions in superconducting quantum interference devices (SQUIDS) and the invention of fabrication methods for multi-layer thin films used to develop novel microwave devices.

Nicholas King

King was selected as a Laboratory Fellow for his outstanding and sustained contributions to the Nuclear Weapons Programs at Los Alamos over the past 20 years. He is internationally recognized as the developer of PINEX (Pinhole Imaging Neutron Experiment) that allowed, for the first time, the imaging of nuclear reactions in flight in underground nuclear tests. His work pioneered a series of imaging techniques that have revolutionized measurements in the nuclear weapons program.

Michael Nieto

During his 31-year career at Los Alamos, Nieto has made significant contributions to several areas of physics including particle physics, quantum mechanics and astrophysics. His work has influenced both theoreticians and experimentalists and is nationally and internationally recognized. In addition to his personal scientific contributions, Nieto also has contributed to the Laboratory by encouraging numerous collaborations and inspiring a league of young scientists.

Arthur Voter

Voter was named Laboratory Fellow for research on increasing the power and quality of atomistic simulation methods. In particular, his work on methods for accelerating molecular dynamics (hyperdynamics and temperature-accelerated dynamics) have allowed the world to perform materials simulations on much longer time-scales than has previously been possible — time scales at which processes such as metallic surface diffusion, protein or polymer folding and surface growth occur.

Only 2 percent of the Laboratory's current technical staff members can hold the title of "Fellow" at any one time. Fellows are expected to continue to play an important scientific or technical role in the Laboratory and to contribute in significant ways to Laboratory programs and initiatives. Fellows are often called upon to provide critical analyses of significant issues affecting Laboratory programs and its work force, particularly any highly technical issues.

Nominations were submitted to the members of the Laboratory Fellows Screening Committee, which reviewed the nominations and then submitted their recommendations to Nanos, who then selected the top seven candidates for the honor. For more information about the Fellows, see their Web site at <http://www.lanl.gov/science/fellows/index.shtml>.

Los Alamos NewsLetter

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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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Help is on the way

New FWO-KSL information help desk available

by Kathryn Ostic

Facility and Waste Operations (FWO) Division and KSL Services recently established the Information Help Desk, a 90-day pilot program. This new help desk is designed to provide guidance to Laboratory employees and organizations on issues associated with Laboratory facilities and associated real property and installed equipment.

Employees can contact the information help desk about facility service queries, general Lab assistance, building locations, directions, service-contact lists, recycling and pollution prevention and other pertinent information.

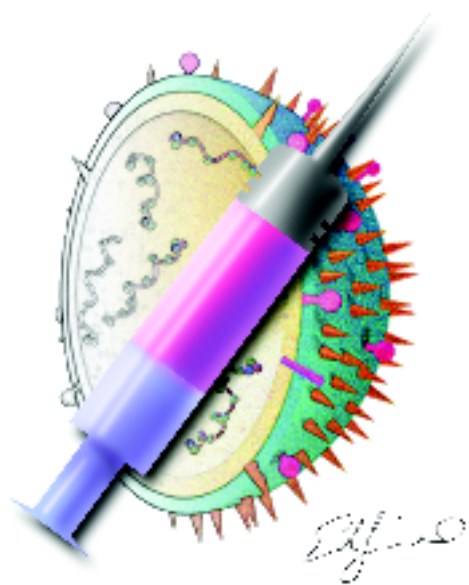
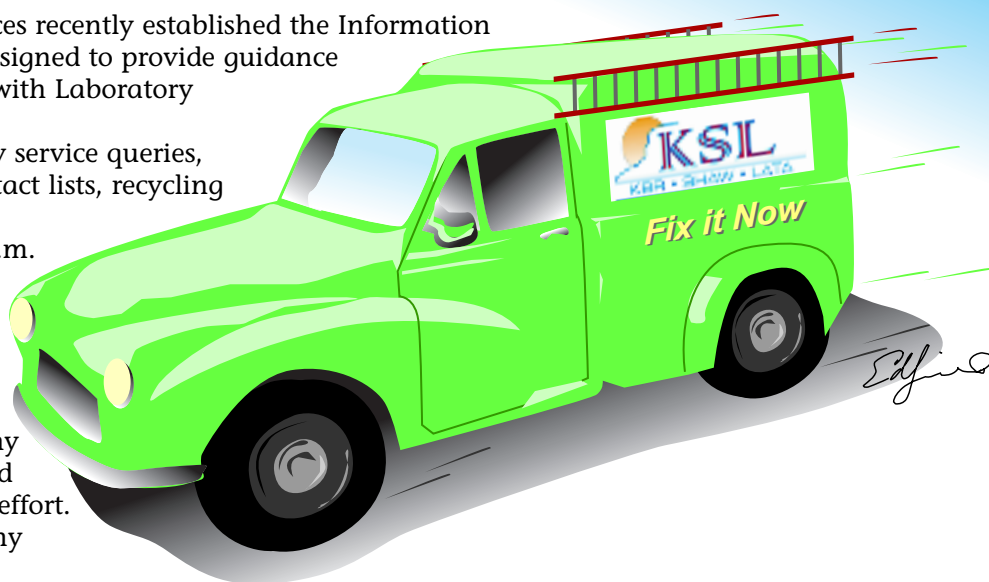
The Information Help Desk hours are from 6:30 a.m. to 5:30 p.m. Monday through Friday.

"I expect the help desk to streamline lines of communications between the customer and service providers and thus achieve improved efficiencies. Based on customer utilization and lessons learned, the help desk will be evaluated and modified accordingly for long-term implementation" said Sam Subbaswamy of Performance and Contract Management (FWO-PCM). He added that the FWO-PCM program office will be the focal point for this effort.

Feedback about the new service can be provided to Subbaswamy by calling 5-3006 or writing to subbaswamy@lanl.gov by e-mail.

For more information about the help desk, call 7-0550, go to http://arania.lanl.gov/fwo_pub/fwo_services/html/fwo_services_index.htm online or write to facility@lanl.gov by e-mail.

To read a master-management memo on the new initiative, go to http://int.lanl.gov/memos/MasterManagement/MM1757_ADS1927.PDF online.



Laboratory flu clinic begins Oct. 27

Occupational Medicine (HSR-2) will again be offering free flu vaccinations for Laboratory workers beginning Oct. 27 and continuing through Nov. 7 or until all the vaccine is administered.

Again this year, staff from HSR-2 will go to various technical areas around the Lab to make it easier for workers to receive a flu shot, said Buffy Bergquist of HSR-2. However, because HSR-2 is in the process of relocating to its new facility south of its current building at Technical Area 3, no vaccines are being administered at the health clinic.

University of California Laboratory employees, Department of Energy Office of Los Alamos Site Operations employees and subcontract personnel from KSL Services and Protection Technology Los Alamos as well as Los Alamos County Fire Department personnel can receive a free flu shot, said Bergquist. Personnel from other subcontract companies also can receive a free flu shot with the approval of their employer, she said.

For more information and the schedule for flu immunizations, see the online Daily Newsbulletin at <http://www.lanl.gov/newsbulletin> or go to the HSR-2 Web page at <http://int.lanl.gov/worklife/health/occmed/>.

Construction begins on Pajarito Road access-control stations

by Kevin N. Roark

The temporary access-control stations currently in place along the Pajarito Road corridor are being replaced by permanent structures that are designed to better manage traffic flow and accommodate multiple lanes of traffic including bicycles, pedestrians and multi-use vehicles. The new stations also will have an additional vehicle-search lane and a turn-off and parking area for visitors or unauthorized vehicles.

Phase one of the construction project begins this month, and the entire project is expected to be complete in early 2004. Phase one includes the new west Pajarito access station, phase two includes the rerouting of east Pajarito Road and phase three will include the construction of the east station.

The construction project is not expected to impact current traffic flow during rush hours because there will be no change in the number of open lanes during those times, according to project managers. The new east Pajarito Road station will be built almost entirely off the current roadway, so there will be minimal impact on traffic flow during construction. The construction of a new west [Pajarito Road] station will be phased so that traffic flow can continue with no impact during rush hours. Construction work that could impact traffic will be performed during nonrush hour times or on weekends to minimize any traffic problems.

Once the permanent access-control stations are in place, traffic should move more smoothly and give Protection Technology Los Alamos personnel greater ability to screen and, if necessary, stop incoming traffic, said Mark Harris of Distributed Services (PM-DS). In the future, more robust barrier systems will be integrated into the control stations and some badge or pass-issuing capability will be provided, he added.

"The permanent stations are designed to better manage traffic flow and provide the Pajarito corridor with a better standard of security," said Scott Gibbs, acting Security and Safeguards (S) Division leader. "Because of Sept. 11, 2001, the nature of the terrorist threat has changed, and it's become clear that the Laboratory needs to upgrade the security of its boundaries. The Pajarito-corridor project is just one of many projects to come that will address this important need."

Current practices on vehicle screening and vehicles that fail to stop at the existing access stations won't change when the new stations open. At random intervals, explosive-detection dogs may be present at the access stations. Any vehicle passing through the station without stopping to show proper identification will be followed, stopped and the occupants will be questioned by the guard force. Anyone without proper identification will be escorted off Laboratory property.

The current requirements for access to the Pajarito corridor are as follows:

- At least one individual in each vehicle must have a valid Laboratory badge; if the Laboratory badge does not include a photo (visitor, temporary), additional picture identification must be presented.
- Motorcyclists must have a valid Laboratory badge, and if the PTLA officer cannot positively identify the rider, the rider may be asked to remove his or her helmet for identification purposes.
- Commercial delivery trucks must either have a person with a valid Laboratory badge or have a pass from the truck-inspection station, located at the bottom of the truck route.
- Bicyclists and runners/walkers do not have to show identification.

For more information on the Pajarito Road corridor access-control construction project, contact Harris of PM-DS at harrism@lanl.gov by e-mail.

Program aims to attract top-quality researchers

by Hana Binder

The Laboratory has instituted a new National Security Fellows program to attract top-quality researchers into technical staff member positions. Los Alamos' major scientific and technical successes have historically been based upon the accomplishments of outstanding scientists and engineers, and this program is aimed at helping to recruit some of the future top researchers and scientific leaders at the Lab. The Senior Executive Team has approved the program, and National Security Fellow job offers will be made from the Director's Office.

The program, which is not affiliated with the Laboratory Fellows program or the National Security Postdoc Program, is aimed at recruiting outstanding scientists and engineers from outside the Laboratory who are in the early or middle stage of their careers, according to Mark Chadwick, co-chair with Bill Press, Laboratory deputy director for science and technology, of the recruitment committee. The National Security Fellows program creates a portal for bringing outstanding researchers into the Lab's mission-relevant work, he said.

This program provides a number of incentives for attracting high-quality researchers to Los Alamos: programmatic funding guaranteed for three years; the prestige of a named fellowship for three years; and start-up research funds, to be agreed upon on a case-by-case basis.

"The goal of this program is to improve the Lab's ability to compete with universities

and leading laboratories to recruit external, targeted, outstanding early/mid-career researchers," Chadwick said. The program is aimed at hiring technical staff members, not postdoctoral candidates. Candidates for National Security Fellow positions should have received their doctorates within the past 15 years. The program acts as a tool to attract the very best in all the relevant fields, with an institutional perspective to integrate them into the Lab, continuing the tradition of excellent research and development that the Lab is known for, Chadwick noted.

Each individual's research must be aligned with Lab strategic mission areas. There also is the opportunity for National Security Fellows to have inter-division mentor opportunities or joint assignments. "These assignments provide a bridge between related line organizations and research programs and provide opportunities for the fellows to become future leaders and innovators in science for national security," Chadwick said, pointing out that division offices are ultimately responsible for helping develop the fellows' careers.

Four directorates with national security-relevant work will participate in the National Security Fellows program: Strategic Research, Threat Reduction, Weapons Engineering and Manufacturing, and Weapons Physics. Initially, the program is recruiting up to eight National Security Fellows per year, with two fellows in each of the participating directorates. The fellows will meet several times during the year to participate in National Security

Fellows program activities, such as bi-monthly colloquia.

The associate directors and division directors are working with a recruitment committee, composed of representatives from participating directorates. The committee serves as an "executive search committee," Press said, with its members acting as points of contact for their directorates, coordinating recruitment and nomination efforts within the divisions. Group and division offices are encouraged to forward information on possible candidates to a recruitment committee member in their directorate.

Information on the program, as well as a sponsor's nomination form, is given at <http://int.lanl.gov/recruiting/fellows.shtml> online. A candidate's résumé and nomination form should be submitted to LANL Recruiting Group at nsfellows@lanl.gov. There is no deadline because each submission is dealt with as it is received. The nomination form should describe the candidate's research specialty, reputation and accomplishments, as well as the potential relevance of his or her future work to the Lab's national security mission. Sponsoring management also should include documentation of their candidate's leadership capabilities and reasons behind the candidate's eligibility for this program. Candidates must be able to obtain a Department of Energy Q-clearance.



Trivia contest winners lunch with the director

The six winners of the Diversity Office's trivia contest claimed their prize — lunch with Director G. Peter Nanos — Sept. 22. The winners, all those who answered questions correctly about the "Weaving Our Worlds" diversity calendar had their names put into a "hat" and from the total of 125 entries, the six lucky individuals were chosen. Winners shown in the photo above with Nanos, second from left, are Jan Watson of Gas Transfer Systems (ESA-GTS), left; Christopher Smith of Integrated Information Management (FWO-IIM), second from right; and Lawrence Quintana of Project Quality Management (PM-18). In the photo at right is Rhonda Rogers of Risk Reduction and Environmental Stewardship (RRES-DO) and Nanos. Other winners not pictured are Deb Butler of the Performance Surety (PS) Division and Hasha Cole of Procurement (SUP-1). Joining the winners were members of the DVO staff. The "Weaving Our Worlds" diversity calendar engages users through sound and video from such sites as the Smithsonian, Public Broadcasting Service, Discovery Channel and National Geographic. The WOW diversity calendar offers a breadth and depth of content unavailable elsewhere. Go to dominoapp.lanl.gov/lanl/lanlevents.nsf/WOWCalendar?OpenForm&calDate=Current to view the calendar online. Photos by LeRoy N. Sanchez



Lab celebrates Hispanic Heritage Month

Northern New Mexico educator and musician Cipriano Vigil sang traditional New Mexican folk songs and told stories, in words and music with his guitar and fiddle, at the opening event for the Lab's Hispanic Heritage Month observance in the Administration Building Auditorium at Technical Area 3. "Hispanic Americans: Honoring our Past, Surpassing our Present, and Leading our Future," is the theme for this year's national Hispanic Heritage Month. The Hispanic Diversity Working Group and the Diversity (DVO) Office are sponsoring the observance at the Lab. Hispanic Heritage Month is celebrated nationally from Sept. 15 to Oct. 15.

Photo by LeRoy N. Sanchez

Park and Ride 50,000th passenger wins all-expense-paid trip

Michael Chavarria of Nuclear Materials Science (NMT-16) steps out of a Park and Ride commuter bus after he was selected as the 50,000th passenger to use the service. "I've never won anything in my life, and I will definitely enjoy the trip," said Chavarria, referring to the trip to Laughlin, Nev., which he received from the New Mexico Department of Transportation and All Aboard America. Chavarria, who also received \$200, was recognized Sept. 9 at the West Jemez Road bus stop at Technical Area 3. Chavarria was a passenger on the green route, which travels to Española. The state road agency handed out tickets to passengers to select the 50,000th ticket. Barb Stine, principal deputy director in the Associate Directorate for Operations (ADO) selected the winning tickets.



Ticket holder number 50,001 is Mary Del Mar, center in photo at left, of Actinide and Fuel Cycle Technologies (NMT-11). Del Mar also won an all-expense-paid trip to Nevada. Also shown in photo left to right are Ricardo Campos and Josette Lucero, of the Transportation Department, Stine of ADO and John McElroy, also of the Transportation Department. Del Mar was a passenger on board the blue route traveling to Santa Fe. The Park and Ride commuter bus service has averaged about 3,000 passengers a week since it began operating in May. Passengers on Sept. 9's blue and green bus routes rode for free in the afternoon to promote the service. Photos by LeRoy N. Sanchez

Four Green Zia awards garnered by the Lab

by Kathryn Ostic

Four Los Alamos National Laboratory divisions received the fifth annual 2003 Green Zia Environmental Excellence Program recognition for their efforts in pollution prevention at a ceremony recently at the Santa Fe Hilton Hotel.

The Dynamic Experimentation (DX), Engineering Applications and Sciences (ESA) and Nuclear Materials Technology (NMT) divisions, received the Achievement Level Recognition and the Facility and Waste Operations (SWO) Division received the Commitment Level Recognition.

Achievement Level Recognition identifies organizations that have turned their pollution-prevention programs into prevention-based environmental-management systems and can demonstrate measurable results.

Commitment Level Recognition identifies organizations that have made strong commitments to pollution prevention and are establishing systematic pollution-prevention programs.

The award winners were recognized by New Mexico Environment Department Secretary Ron Curry and New Mexico Lt. Governor Diane Denish.

"As businesses improve environmentally, they enjoy increased efficiency and waste minimization that improves productivity and profits," said Curry. "This is the big secret of pollution prevention that I have been working to get out, helping reduce waste is not only good for our state's

environment, it is also good for business and the economy of New Mexico."

Denish said, "We believe that [companies] can do good [environmental programs] and still be successful. The Green Zia endorsement should be translated to every business in New Mexico and the goal would be to ensure that companies have proactive environmental plans."

This year's keynote speaker, Jack McGowan of Energy Controls Inc., said, "Blending energy and environmental practices with technology creates an awareness that there is an economic development opportunity."

The Green Zia program, established in 1998, is closely modeled after the successful Quality New Mexico program and is an assessment tool to examine strengths and opportunities for improvement. Green Zia emphasizes prevention of waste and pollution by relying on cost-effective solutions to ensure a clean environment and healthy economy for all of New Mexico.

The program is voluntary and sponsored by the New Mexico Environment Department and administered by the New Mexico Environmental Alliance, a partnership of state, local and federal agencies; academia; private industry; and environmental advocacy groups.

"We anticipate that the new [Richardson] administration will view Green Zia as the crown jewels. The program continues to be better known each year in the private sector and in government," said James Bearzi Pollution Prevention director, NMED.

Bearzi also said that 90 percent of businesses in New Mexico have fewer than 100 employees and Green Zia must forge a tight [mentoring] partnership with large agencies that have resources such as the Laboratory and surrounding communities to help everyone succeed.

More information about the Green Zia program is available at the state's program Web site at http://www.nmenv.state.nm.us/Green_Zia_website/index.html online.

The Laboratory's winning applications also are available at Los Alamos' RRES-Prevention Program at http://emeso.lanl.gov/eso_projects/green_zia/Applying/application.html online.



Four Laboratory divisions received the fifth annual 2003 Green Zia Environmental Excellence Program recognition for their efforts in pollution prevention at a recognition ceremony in Santa Fe on Sept. 30. New Mexico Lt. Governor Diane Denish, left, awards Mary Hockaday of the Dynamic Experimentation (DX) Division with an achievement-level award. Achievement Level Recognition identifies organizations that have turned their pollution prevention programs into prevention-based environmental management systems and can demonstrate measurable results. Green Zia emphasizes prevention of waste and pollution by relying on cost-effective solutions to ensure a clean environment and healthy economy for all of New Mexico. Photo by LeRoy N. Sanchez



Priedhorsky new TR science adviser



Bill Priedhorsky

Bill Priedhorsky is the new science adviser for the Threat Reduction Directorate, responsible for the cross-cutting science that underlies TR programs.

Priedhorsky will assemble and chair a TR science council and be a champion for creativity within the directorate, identifying, cultivating and articulating the science and technology underpinnings of threat reduction, both within the TR divisions and in partner divisions. Particular priorities will be the science and technology that enable directorate thrusts in defense transformation (see week of Aug. 18, 2003 newsletter), intelligence, TR engagement with homeland security and nuclear nonproliferation, and the Laboratory thrust in predictive and materials science. He will help translate these thrusts into concrete science and technology initiatives.

A Laboratory Fellow, Priedhorsky's previous position was as senior science adviser for the former Nonproliferation and International Security (NIS) Division, which he held from 1999 until this year. Other Los Alamos roles have included lead project leader for Proliferation Detection (1995-1999) and project leader for the ALEXIS (array of low-energy X-ray imaging sensors) small satellite. Priedhorsky, holding a doctorate in physics from California Institute of Technology, has been at Los Alamos since 1978.

Straw named to Los Alamos weapons post

John Straw is the new deputy associate director for Weapons Engineering and Manufacturing at the Laboratory.

Straw, who has worked at Los Alamos for 31 years in a variety of engineering, manufacturing and management positions, will lead scientific and technical work on weapons engineering and manufacturing technologies. He also will provide direct



John Straw

oversight of weapons-system stewardship activities in the directorate.

Straw has worked in welding, joining and fabrication process technologies and in manufacturing process development. His extensive supervisory and management experience includes leading four key projects: B61 Acorn development; W76 Acorn development; W88 Terrazzo development; and engineering design of advanced concept nuclear weapons.

Straw was associate group leader for gas transfer systems and program manager for nuclear reconfiguration and for the device fabrication facility. Most recently, he served as deputy division leader for program execution and as acting division leader in the Nuclear Materials Technology Division, where he led the division in delivering the W88 certifiable pit, Qual 1, a critical milestone for the Laboratory.

Straw began his career as a process development engineer at the Kaiser Aluminum Center for Technology in California. He holds master's and bachelor's degrees from the University of Kentucky, both in metallurgical engineering.

Peterson recognized for compact reactor technology

Otis Peterson of Advanced Chemical Diagnostics and Instrumentation (C-ADI) recently was recognized by a consortium of federal laboratories for a compact reactor technology he invented.

The technology recognized is a self-stabilizing, nuclear-power source. It is a compact device capable of generating high levels of thermal power and is self-regulating to a constant temperature of operation. The thermal stability of the power module is built into the design and is achieved without any mechanical moving parts or other external controls. The constant temperature characteristic allows the device to regulate its



Otis Peterson

output in relation to how much power is drawn so that it can automatically accommodate power production up to a few tens of megawatts of electricity. The absence of mechanical moving parts should make the reactor nearly maintenance free for several years. The technology was selected for its timeliness in response to today's current threats and alternative-fuel needs.

Peterson was recognized for "exemplary contribution in his scientific field" at the Outstanding Technology Development Awards from the Federal Laboratory Consortium's Mid-Continent Region at a ceremony in September.

Peterson has previously won two R&D100 awards for laser inventions made during his career and was recently elected as a fellow in the Optical Society of America for his contributions to the development of laser technology.

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Backhaus named top young innovator

The Massachusetts Institute of Technology's Technology Review magazine recently announced that Laboratory staff member **Scott Backhaus** is one of the world's 100 Top Young Innovators for 2003.

The TR100, chosen by the editors of Technology Review and an elite panel of judges, consists of 100 individuals under age 35 whose innovative work in technology has a profound impact on today's world. Nominees are recognized for their contributions in transforming the nature of technology in such industries as biotechnology, computing, energy, nanotechnology, telecommunications and transportation.

Backhaus was chosen for his work in thermoacoustics and specifically his role in the development of the acoustic Stirling heat engine. Backhaus graduated from the University of Nebraska at Lincoln in 1990 with a degree in engineering/physics. He received his doctorate in physics from the University of California at Berkeley in 1997. Backhaus came to Los Alamos as a postdoctoral fellow in 1998 and became a technical staff member this year.

"Having Scott named as one of the world's top young innovators underscores the Laboratory's commitment to bringing the best and the brightest young scientists to Los Alamos and providing them with the opportunities to work on exciting projects of national importance," said Thomas J. Meyer, associate director for strategic research.

"Innovation and technological change are essential to worldwide economic growth. Now, more than ever, it's important to recognize that there is no one technology driving the next wave of success, but rather several that, when fused, will create another era of significant change for our society.

"The members of this year's TR100 hail from fields such as nanotechnology, biotechnology, wireless, energy, computing and medicine. Each innovator is actively developing the emerging technologies that we feel will profoundly impact our world in the century ahead," said Robert Buderer, editor in chief of Technology Review. TR100's panel of judges includes Vinton Cerf, WorldCom Corp.; David Tennenhouse, Intel; Gordon Bell, Microsoft; Christina Lampe-Onnerud, TIAX; Stephen Quake, California Institute of Technology; Rodney Brooks, MIT CSAIL; and George Whitesides, Harvard University.



Scott Backhaus

Peterson ...

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Peterson came to Laboratory in 1979 and earned his bachelor's, master's and doctoral degrees in physics from the University of Illinois.

The FLC was formally chartered by Congress in 1986 to promote and strengthen technology transfer activities. It is a nationwide network of federal laboratories that strives to link laboratory-developed technologies and expertise with the private sector. More than 700 major federal laboratories and centers and their parent departments and agencies are FLC members. The Mid-Continent region of the FLC includes 14 states and more than 100 laboratories. For more information, see www.federallabs.org online.

Gitomer receives Richard F. Shea Distinguished Member Award



Steven J. Gitomer

Steven J. Gitomer of Safeguard Systems (NIS-7) was awarded the 2003 Richard F. Shea Distinguished Member Award for outstanding contributions through leadership and service to the Nuclear and Plasma Sciences Society and to the fields of nuclear and plasma sciences. The award is funded by the Institute of Electrical and Electronic Engineers and the NPSS

and was presented this month in Portland, Ore.

Gitomer's career began at the Lab in 1970 as a visiting staff member in the former Controlled Thermonuclear Research (CTR) Division where he worked on plasma simulation. From 1974 to 1991, he worked on laser matter interactions in what is now Plasma Physics (X-1). His current position in NIS-7 allows him to work with projects to fund weapons science to conduct civilian work in the former Soviet Union. He previously worked on foreign technology in Nonproliferation and International Technology (NIS-8).

"It's quite an honor to be joining the ranks of those previous awardees whom I admire and respect. It is especially meaningful to me to receive an award named in memory of a man who helped to found the IEEE NPSS, who greatly influenced me from my earliest days as editor of the IEEE Transactions on Plasma Science and who devoted so much time and energy to the betterment of NPSS," said Gitomer.

Gitomer, who co-founded the IEEE NPSS in the early 70s, received an IEEE Millennium Medal in 2000. He has served as editor for IEEE NPSS since 1984.

Gitomer earned his bachelor's and master's degrees from Johns Hopkins University and his doctorate in electrical engineering from the University of Wisconsin.

Chastain new PM deputy

David Chastain is the new deputy division leader for the Project Management (PM) Division. "My goal is to use my experience and build on the successes of PM Division to make PM Division the best-value provider of high-quality project management services to the Lab," Chastain said.

Chastain has 18 years of project management experience at the Laboratory. Most



David Chastain

recently, he served as project leader for construction for the \$260 million Dual Axis Radiographic Hydrodynamic Test (DARHT) project. Along with his team in 1999, Chastain received a Distinguished Performance award for DARHT Phase 1 and the Department of Energy Defense Program's Award of Excellence.

Chastain has been PM Division team leader for construction projects in Dynamic Experimentation (DX) and Engineering Sciences and Applications (ESA) divisions for the last four years. Also, Chastain has overseen successful projects such as the Laboratory Data Communications Center (LDCC), the Materials Science Laboratory, and safeguards and security upgrades phase 1.

Chastain received a bachelor's degree in architectural studies and a master's degree in architectural engineering from Oklahoma State University. Chastain said he's excited to assume his new position and looks forward to leading the PM Division into the future. "When my term is up, I want people to say I helped make PM Division a great place to work," Chastain declared.

In Memoriam

Harold V. Argo

Retired Laboratory physicist Harold V. Argo died Aug. 3 following a lengthy illness. He was 85.

Argo began his career as a technical staff member in 1944 in the former Experimental Physics (P) Division and served as alternate group leader working on the Satellite Nuclear Detection System (Vela Hotel Program), a high-altitude satellite system that could detect nuclear explosions — at first in space and, with later improvements, on the ground and in the air. He also worked in the Earth and Environmental Science (EES) Division retiring from the Laboratory in 1984.

Argo earned his bachelor's from Whitman College in Walla Walla, Wash.; master's from George Washington University in Washington, D.C.; and doctorate from the University of Chicago, all in physics.

He was preceded in death by his wife of 45 years, Mary Langs Argo, a physicist in the former Weapons Engineering (W) Division, who died in 1985, and a daughter Leslie Ann Argo, who died in 1989.

Argo is survived by his widow, Jean Anderson Argo, and his sons, Paul of Nonproliferation and International Security, Research and Development (NIS-RD); Peter; and Theodore.

Carlos E. Garcia

Laboratory employee Carlos E. Garcia of Environmental Applications (RRES-EA) was killed in a small-plane crash Sept. 29 near Belen.

Garcia, 67, was piloting a 1947 Beechcraft airplane when the crash occurred. He was alone in the plane. Garcia, a project leader in RRES-EA, came to work for the Lab in 1989.

Garcia, who was active for a time in the Hispanic Diversity Working Group at the Lab, has bachelor's, master's and doctoral degrees in mechanical engineering from New Mexico State University. He is survived by his wife, Anita, four children and three grandchildren.

John D. Lucero

John D. Lucero, a Laboratory retiree and longtime resident of the Pojoaque Valley, died Sept. 1. Lucero was a Laboratory employee for 38 years, working as an accountant. He was hired by the Lab in 1952 to work in the then-AO-5 and retired in 1990 from the then-FIN-3. He was preceded in death by his wife, Libby, and survived by his daughter Theresa and her husband, Henry Lucero of Internal Audits (AA-3), and his sons Ron of Protection Technology Los Alamos and Robert.

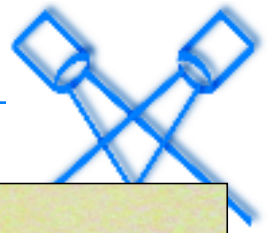
Emergency safety tips

Every day in the United States there are nearly 25,000 visits to emergency rooms for unintentional injuries among children ages 14 and under. Knowing how to deal with an emergency can make the difference between life and death.

Here are some safety tips to take:

- Post telephone numbers for police, fire, ambulance, poison control center and family doctor by every telephone.
- Make sure that young children, babysitters and grandparents know the address and telephone number when calling for help by listing them by every telephone in the home.
- Make sure that children have a trusted neighbor or friend that they can contact in the event that parents or caregivers are unavailable.
- Teach children how to dial 9-1-1 so that a child can clearly and calmly provide a dispatcher with the necessary information to send help.
- Create and practice a family emergency plan. What is the safest way to get out of the house if there is a fire? Where will you meet if there is a fire or other emergency?





A love affair with music

by Chris Roybal

Frances Castellano of High Performance Computing Systems (CCN-7) believes that “music can be a big part of anyone’s life.” This easily can be seen and, for that matter, heard with every mellow melody Castellano produces and the soft, slow strumming of her guitar. When this Selena/Patsy Cline admirer is not working in Customer Service for CCN-7, she’s most likely making some sort of music magic as she has done throughout her life.

Castellano began singing at 9. At 12-years old, her love affair with music escalated as she added an instrument to her repertoire. “I was always interested in guitar,” Castellano said. Her interest quickly grew, and now, as a member of her band Estilo, Castellano is being recognized for her melodious passion.

Castellano, her cousin and two friends formed Estilo approximately seven years ago. Her husband Lawrence Castellano serves as Estilo’s manager. “I have a good husband who supports me,” emphasized Castellano.

In 1998, Estilo received the Upcoming Artist Award at the New Mexico Hispano Music Awards ceremony. The awards didn’t stop there for Castellano and her band. In 2001, Castellano’s ballad, “Querido Amor,” which she wrote for her husband as an anniversary gift, won Original Song of the Year at the same competition. “I was surprised,” Castellano confesses.

A larger surprise and award awaited Castellano at the 2002 New Mexico Hispano Music Awards presentation: She was named Female Vocalist of the Year, the most prestigious honor bestowed by that organization. “It was great,” Castellano affirmed. In a way, winning this award validated Castellano’s musical career. “If I never sing or play again, I’m content with what I’ve done,” she said.

Not only does Castellano’s music, which ranges from Spanish to rock ‘n’ roll to country, make people smile and tap their toes, but it also allows Castellano to spread traditions that might otherwise be lost. Castellano strives to involve her four children in many aspects of music and expose them to such customs as La Entrega, traditional Spanish wedding verses, so these customs aren’t



Frances Castellano of High Performance Computing Systems (CCN-7) and her band play at the Arm and Hammer World College at the Montezuma Castle in Las Vegas, N.M. Pictured left to right are Andrew Quintana, lead guitar and vocals; Gerald Rodriguez, drums and vocals; Castellano, guitar and vocals; and Lawrence Ulibarri, bass guitar and vocals. Photos courtesy of Castellano

forgotten. Castellano believes that traditional Hispanic songs are slowly being lost simply because people are not singing them.

During the school year, Castellano gives time in the classroom as she introduces children to the sweet-sounding world of music. She never forces any child to pick up an instrument and play, but rather believes children should be given the time to choose whether they want to participate. “I think if you start kids too young with an instrument, they might lose interest because it’s too hard for them. If they tell you they want to play, that’s the right time to teach them,” she noted.

Currently, Castellano volunteers at Pojoaque’s Boys and Girls Club where she teaches guitar. She believes music can help bring people self-confidence, comfort and happiness, and that’s one major reason Castellano believes she’ll be creating music the rest of her life. “That’s for me — it helps me,” Castellano declared.



Frances Castellano is pictured with two of the three awards she and her band, Estilo, have won at the New Mexico Hispano Music Awards. In 2001 Estilo won the Upcoming Artist Award and Castellano received an award for Original Song of the Year. In 2002 Castellano was named Female Vocalist of the Year.

Do you have a holiday tradition you’d like to share?

The biweekly hard-copy newsletter would like to have the back page of our week of Dec. 8 issue filled with short (25 words or fewer) descriptions of special holiday activities that have become traditions for members of our work force and their families.

We want to showcase the diversity of holidays celebrated at year’s end (Christmas, Hanukkah, Kwanzaa, Winter Solstice, etc.) and the personal traditions that make these celebrations special to Lab employees.

We’ll print the names and organizations of those submitting traditions that are used, and we may take photographs as well — if we receive photos of folks doing their traditional “thing,” so much the better!

Please send your “short” by Nov. 17 to Judy Goldie, associate editor, Los Alamos NewsLetter, Mail Stop C177 or via e-mail to goldie@lanl.gov.

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