

# NewsLetter

Week of May 8, 2006

Vol. 7, No. 10

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### Science Circus makes learning fun for students

The Bradbury Science Museum recently held it's annual Science Circus, an outreach program that encourages families to discover science through hands-on experiments. .... Page 3

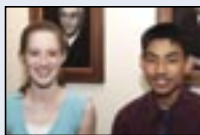


### Laboratory welcomes students back for the summer

During the summer, more than 1,200 students come to Los Alamos. This week's issue of the NewsLetter contains useful information for new and returning students. .... Pages 4 and 5

### Los Alamos Employees' scholarship fund awards scholarships

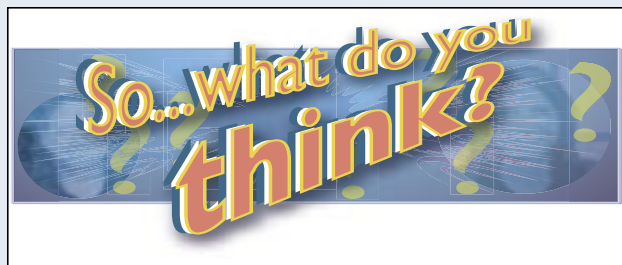
Fifty-four high school seniors and college students recently received 2006 Los Alamos Employees' Scholarship Fund scholarships at an award ceremony luncheon. The Los Alamos Employees' Scholarship Fund encourages Laboratory employees, retirees and subcontract personnel to donate to a fund that awards college scholarships to Northern New Mexico area students. .... Pages 6 and 7



### Mathematical code for inverses wins top prize at Supercomputing Challenge

A pair of budding mathematicians from Albuquerque Manzano

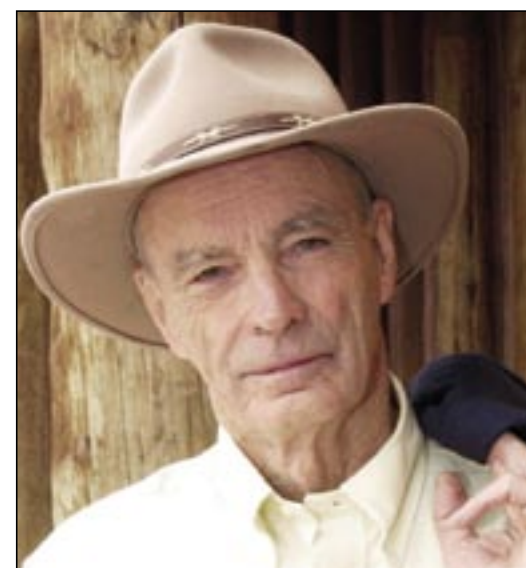
High School captured the top prize during awards ceremonies for the New Mexico Supercomputing Challenge held at the Laboratory. .... Page 8



Students will begin returning to the Laboratory this month for summer employment. What advice would you give to new and returning students to help make their stint at the Laboratory more productive and enjoyable? Learn what your co-workers had to say on Page 6.



Keith Boyer



Stirling Colgate

## Boyer, Colgate awarded the 2005 Los Alamos Medal

by Sallie Boorman

Laboratory technical staff members Keith Boyer and Senior Laboratory Fellow Stirling Colgate are recipients of the 2006 Los Alamos Medal. The Los Alamos Medal is the highest honor and most prestigious award the Laboratory can bestow upon an individual or small group.

Laboratory Director Bob Kuckuck will present the medals during a formal award ceremony and reception at 4 p.m. May 23, in the J. Robert Oppenheimer Study Center.

Recipients of the Los Alamos Medal are evaluated based on their exceptionally distinguished achievements that have impacted the success of the Laboratory, either through influencing mission accomplishments or enhancing distinction, making a contribution that changed the course of science and establishing a major direction for Los Alamos and/or the nation.

"Keith Boyer's and Stirling Colgate's distinguished careers at Los Alamos span more than four decades. Their contributions to Los Alamos and the nation have been immense and further underscore the vital importance this Laboratory has played in the past and the excellent science we continue to perform in support of the nation. I am honored and humbled to be able to present the 2006 Los Alamos Medal and I want to say to them, 'thank you for your contributions,'" said Kuckuck.

Boyer has served the Laboratory for 55 years and is being recognized as being the intellectual force behind Los Alamos' entry into magnetic fusion, nuclear rocketry, laser isotope separation and inertial fusion. Boyer, who received his doctorate in nuclear physics from the Massachusetts Institute of Technology, is credited with introducing and leading dramatic advances in science and engineering and has been involved in producing the first neutrons from a thermal plasma, co-inventing the electron beam carbon-dioxide laser and advancing X-ray lasers for high resolution microscopy. After retirement, he continued research and is responsible for a breakthrough in the development of an X-ray laser camera that promises to offer a nanoscale measurement technique comparable in importance to the development of the optical microscope. He also is recognized for his foresight in recruiting and nurturing excellent research people within the Laboratory.

"I was surprised and delighted to hear about my being awarded the Los Alamos Medal," said Boyer. "I am particularly appreciative of the very generous support from my peers. I again feel that I am a member of Los Alamos Laboratory and have begun to think of new developments for the Laboratory."

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## Bike safely and enjoy the ride

With warm weather comes an increase in the number of bicycles on the roads. Riding a bicycle can save fuel and provide a great physical workout, but it is vital that bicyclists take safety precautions and adhere to the rules of the road when riding. The following are some bicycle safety tips from the National Highway Traffic Safety Administration and the U.S. Consumer Product Safety Commission.

- **Protect the head; wear a helmet.**

Never ride a bicycle without a helmet. The NHTSA and CPSC recommend that riders use bicycle helmets that comply with the CPSC standard. Wearing a helmet can reduce head injuries by 85 percent.

- **Make sure the bicycle is adjusted properly**

Adjust the bicycle to fit the rider. See the Owner's Manual for guidance.

- **Check brakes before riding; ride slowly in wet weather and apply breaks earlier — more distance is needed to stop on wet surfaces.**

- **See and be seen.**

Wear clothes that are visible — always wear neon, florescent or other bright colors when riding a bicycle.

- **Avoid biking at night.**

Most bicycles are equipped for daylight use and need to be adapted for nighttime riding.

- **Stay alert; always keep a lookout for obstacles.**

Watch for potholes, cracks, expansion joints, railroad tracks, wet leaves, drainage grates or anything that could cause a fall. Before going around an object or vehicle, scan ahead and behind for a gap in traffic. Plan moves and signal intentions.

- **Go with the flow.**

Ride on the right side in a straight predictable path; always go single file in the same direction as other vehicles.

- **Check for traffic; always be aware of surroundings.**

- **Learn rules of the road; obey traffic laws.**

Bicycles are considered vehicles, and riders must obey the same rules as motorists. Read the New Mexico driver's handbook and learn and follow all the traffic signs, laws and rules for operating a vehicle on the road.

## Los Alamos Transition Project information

*Editor's Note: Rich Marquez, leader of the Transition Team, writes a weekly column on the transition project that is posted to the Transition Web site at [transition.lanl.gov](http://transition.lanl.gov). The following is from his last message.*



### Home stretch details

May 2 — As we enter the final 30 days of transition, there are numerous tasks yet to be completed before June 1. An update on some of what is underway and what must be completed prior to contract closeout on May 31 may prove helpful.

#### Interim performance summary

The Interim Performance Summary Initiative process is under way. This initiative will help ensure that an accurate record of employee performance is preserved despite potential organizational and personnel changes after May 31. The first deadline under this initiative was May 5, when employees were required to turn in their completed self-assessments to managers. Managers will be required to complete performance summaries no later than May 31.

#### Employment offer packages

Although the deadline to return employment offer packages to Los Alamos National Security, LLC, is May 15, I again urge employees who have made up their minds about employment to consider returning their packages as soon as possible before the deadline.

By doing so, you will help ensure that databases such as employee payroll and employee benefits are up to date and ready to go on June 1 when LANS assumes management and operation of the Laboratory. Conversion of these and other critical systems is an extraordinary task that will continue to tax incumbent and transition personnel resources through the remainder of transition.

In a related matter, LANS Transition Manager Tom Gioconda informed me that LANS is aware of and is addressing a technical issue that is interfering with employees receiving e-mail verification that their packages have been returned. People with questions about their offer packages are encouraged to call the LANS Transition Hotline at 1-888-505-9292 or send e-mail to [info@lansllc.com](mailto:info@lansllc.com).

#### Processes phase

Blue sheeting related to the Processes Phase of transition is continuing. LANS envisions having all blue-sheeted policies and procedures posted online for employee review by May 22. This review will enable employees to understand and properly inquire about amended work requirements.

#### UC celebration

The Laboratory will celebrate the University of California's 63 years of service to the nation with a series of activities from 9:30 a.m. to 3 p.m. Saturday, May 20, at Technical Area 3. "Celebrating an Era with Pride and Honor" is open to all Laboratory workers, their families and friends and Laboratory retirees.

The day will feature entertainment, food and fun, with a dedication celebration for the new National Security Sciences Building, complete with a ribbon-cutting, [self-guided] tours and speeches. The dedication will feature an unveiling of an artifact of the Pentagon that remained after the Sept. 11, 2001, terrorist attack. Please consult the online Daily Newsbulletin for information about this important and entertaining event.

#### Mission, safety and security

It's important to acknowledge that aspects of the transition will continue after LANS assumes management of the Laboratory on June 1. With regard to some activities, it could take weeks or even months in some cases before things at the Laboratory begin to settle into a more regular routine.

During these next 30 days, we must continue to keep focused on completing transition requirements while maintaining mission, safety and security priorities. Please feel free to talk to your line manager about organizational and mission priorities if you are unclear about them.

## Boyer, Colgate ...

*continued from Page 1*

Colgate's association with Los Alamos began when he was a student at the Los Alamos Ranch School until it was closed by the government in the early 1940s. He obtained his doctorate in physics from Cornell University and worked at Lawrence Livermore National Laboratory and New Mexico Institute of Mining and Technology. He joined the Laboratory in 1976 where he worked in the Theoretical (T) Division. He is recognized for leading the nuclear diagnostics of the nation's largest weapons test conducted by Los Alamos, and for negotiating the cessation of high-altitude and outer space nuclear tests. Colgate also has inspired the inertial fusion and astrophysics programs at Los Alamos and Lawrence Livermore and contributed basic science to fusion ignition and burn, plasma confinement and shock wave physics. His other accomplishments include seminal work in supernovae and gamma-ray bursts. Colgate is a recognized leader in recruiting leading weapons physicists and demonstrates by example that basic and applied science must be partners.

"So many people contribute to one's career and this is especially true of a scientist," said Colgate. "In serving two national labs and a state institution of learning, I feel all those many people who have contributed to and encouraged me so much should feel associated with this honor."

Colgate and Boyer join past Los Alamos Medal winners, Conrad Longmire, Nobel Laureate Hans Bethe, former Laboratory Director Harold Agnew, and Laboratory Fellows Nerses "Krik" Krikorian, George Cowan, Francis Harlow and Louis Rosen in this distinction.

**Los Alamos National Laboratory NewsLetter**

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Jacqueline Paris-Chitanvis, 5-7779

**Associate editor:**  
Steve Sandoval, 5-9206

**Production editor:**  
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Edwin Vigil, 5-9205

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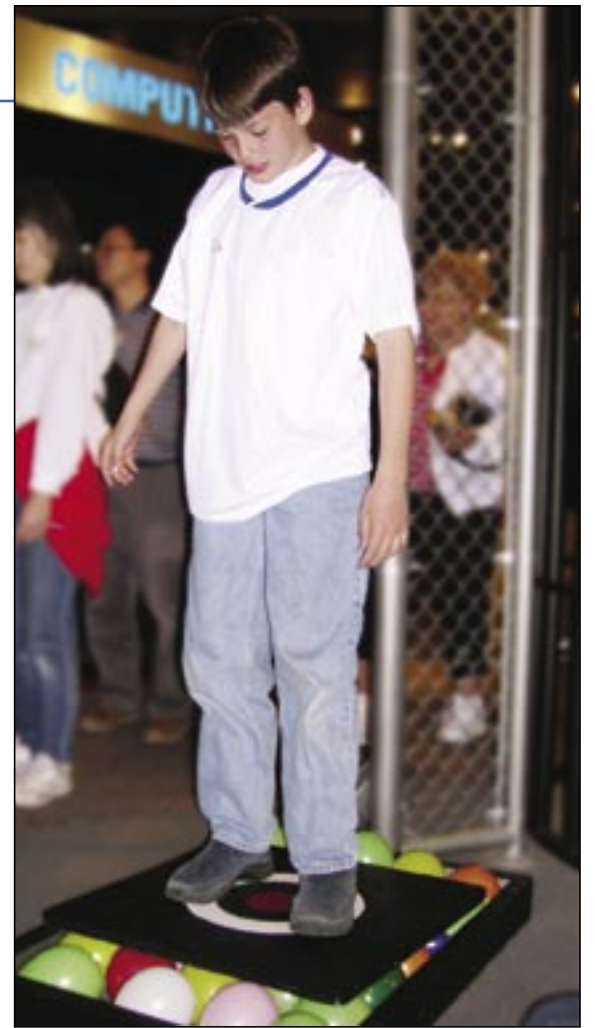
Los Alamos enhances global security by ensuring safety and confidence in the U.S. nuclear stockpile, developing technologies to reduce threats from weapons of mass destruction and improving the environmental and nuclear materials legacy of the Cold War. Los Alamos' capabilities assist the nation in addressing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

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## Science Circus makes learning fun for students



Matt Briggs, left, of Hydrodynamics (DX-3) and Chris Tomkins of Neutron Science and Technology (P-23) explain fluid instability using water to youngsters and their families during the Bradbury Science Museum's annual Science Circus. The Science Circus is an outreach program that encourages families to discover science through hands-on experiments.



A participant at the Bradbury Science Museum's annual Science Circus, balances on a platform resting on balloons to experience the forces of pressure. The balloons will not pop because the pressure of his weight is even on the balloons.  
*Photos by Sallie Boorman*

## Lab, Site Office officials discuss Appendix F performance

by Bill Wadt, Prime Contract Office (PCO) leader

Representatives from the Laboratory, the University of California and the Los Alamos Site Office of the National Nuclear Security Administration recently met in the second of three planned meetings to review the Laboratory's Appendix F performance during the 2006 fiscal year transition period.

The Weapons Appendix F measures (1.1 and 1.4) were rated as good by both the Laboratory and LASO. The Laboratory has been reporting a conservative rating for these measures because 60 to 70 percent of the weapons milestones are not due until the fourth quarter of this fiscal year (July-September). During the review period, Weapons Programs submitted the Reliable Replacement Warhead final design package to NNSA and the Department of Energy, supported production development activities at Y-12 and installed the accelerator test cells in DARHT-II ahead of schedule. Laboratory and Site Office managers discussed the best way to resolve quality assurance issues identified in a recent audit, which both LASO and the Laboratory flagged as a significant concern. UC Associate Vice President John Birely compli-

mented the Laboratory on the continued quality and quantity of important weapons work being accomplished during the stress of transition.

Threat Reduction (Measure 1.2) and Science, Engineering and Technology (Measure 1.3) were rated outstanding by both LASO and the Laboratory. An International Atomic Energy Agency school for senior inspectors was held, overcoming many logistics obstacles. Well-trained IAEA inspectors play a very important role around the world to reduce the threat of nuclear proliferation, a key part of Measure 1.2.

In addition, the Los Alamos Neutron Science Center (LANSCE), which is a key part of Measure 1.3, held a peer review of the Lujan Center for the DOE Office of Basic Energy Sciences that was very well received. The Lujan Center is a centerpiece for attracting users from the international scientific community and invigorating the state-of-the-art materials science needed for our national security mission.

A new multi-site performance measure, championed by Tom D'Agostino, NNSA deputy administrator for defense programs, to foster stronger teamwork among NNSA

sites on key programmatic milestones, was added to Appendix F in the current UC contract. This performance measure evaluates the weapons complex's performance as an integrated multi-site team. Los Alamos, Livermore, Sandia and Pantex have interdependent goals in this measure. The Laboratory has performed well in supporting the other sites on the milestones covered by the measure, according to James Peery of the Laboratory's weapons program.

Overall Compliance (Objective 2) was rated as satisfactory by LASO. Certification of the Laboratory's Environmental Management System under ISO 14001 was cited by Ed Wilmot, LASO site manager, as a noteworthy accomplishment.

The Operational Efficiency Project has successfully completed more than 90 percent of its milestones; everyone agreed that the next important step is to evaluate the effectiveness of the actions taken. Implementation of the Security Annual Operating Plan was outstanding and improved performance in materials control and accountability was acknowledged. LASO rated the Lab's business systems as satisfactory overall. However, of special concern was the difficulty in implementing the Enterprise Project Release 4, Financials, and the need to defer the implementation. The Site Office subsequently approved the Laboratory's proposed path forward to minimize risk as we transfer operations to Los Alamos National Security, LLC.

Property and finance were rated as outstanding and human resources was rated good given the difficulties of meeting recruiting targets during transition.

The Laboratory was commended for going the extra mile as part of its continuing outstanding performance in Objective 3, Transition. With less than a month left in transition, cooperation and communication among the Laboratory, the Site Office and LANS transition teams will be critical to the successful, safe completion of the transition processes.

### Remember ...

May 15 is the deadline for employees to return employment offer packages to Los Alamos National Security, LLC.

Employees who do not turn in their offer packages by the May 15 deadline will not be guaranteed jobs on June 1.

Additional drop-off locations have been established at

- Metropolis Building (Strategic Computing Complex) lobby, Technical Area 3
- Materials Science Laboratory lobby, TA-3
- S-Site cafeteria, TA-16
- Los Alamos Neutron Science Center lobby, TA-53
- Access Center (outside of the human resources offices), TA-55
- Canyon School, south entrance, TA-0



# Laboratory welcomes students back for the summer

## Welcome students!



Bob Kuckuck

Over the last year I have been privileged to be director of this amazing place we call Los Alamos National Laboratory, which has a long and distinguished history of service to the nation.

With the approach of summer — and as we transition to a new management and operations contractor next month — I want to say “bienvenidos,” welcome, to the hundreds of students at all levels who have come to this great institution to learn about and take part in cutting-edge science in pursuit of furthering their education. Some of you are returning to continue your research, while some of you are joining Los Alamos as new students. In either case, we hope your stay is fruitful and challenging.

The most important asset of any institution — and Los Alamos is no exception — is its people. Our high-school co-op program students, our undergraduates and graduate research assistants are our future. The success of this Laboratory will rest in large part on you. You are vital to this Laboratory and to the nation, and your skills, vitality and enthusiasm will help Los Alamos continue to be the premier scientific institution in the country and the world.

During the summer, more than 1,200 students come to Los Alamos to learn and explore everything from science and engineering, to math, technology, business operations and administration. I encourage all students to use this “classroom” called Los Alamos. Attend colloquia, lectures and programs. Be inquisitive; ask questions of your mentors, our scientists and Lab employees. Work safely and smartly! Make your stay at Los Alamos an experience.

We hope that working at this laboratory — your laboratory — will create fond memories and provide a valuable educational experience. And perhaps some day, you will return to Los Alamos to be part of the work force that helps solve some of the nation’s most pressing problems.

I ask all Laboratory staff to join me in welcoming students and wishing them much continued success. I hope you feel at home here as much as I have.

## Division student liaison duties

Division student liaisons are a resource for mentors, students and the division. Division student liaisons add value to the student internship experience by linking students to needed resources within the division, the Laboratory and the community. A successful student liaison monitors students and mentors through regular communication to ensure that students and mentors are meeting all requirements and report any problems to management. IPP 787 Student Mentoring Policy and Procedure requires each division to have a liaison. The policy can be found at <http://policies.lanl.gov/pods/policies.nsf/MainFrameset?ReadForm&DocNum=IPP787&FileName=ipp787.pdf> online.

The primary functions of a liaison are

- Takes an active role in promoting effective mentoring and safe work practices for students, as defined by the division;

- Serves as a point of contact when a conflict between a student and mentor arises;

- Works with Science and Technology Base Programs (STB) and the Human Resources (HR) Division to establish a listing of students and mentors in their divisions;

- Assists mentors within their division with the procedural requirements for mentoring a student;

- Serves as a point of contact and resource to assist students within the division;

- Keeps students and mentors informed of current Laboratorywide activities and resources available to them;

- Coordinates a division student/mentor orientation session;

- Attends the bi-annual Education Programs Office (STB-EPO) liaison training session.

For more information about division student liaisons, contact Carole Rutten of STB-EOP at 5-5194 or write to [crutten@lanl.gov](mailto:crutten@lanl.gov) by e-mail.

## Students’ Association By students — for students

by Kim Tait, Students’ Association chair of the Lujan Neutron Scattering Center (LANSCE-LC)

The Laboratory’s Students’ Association was established in 1997 with the motto, “By students, for students” and ever since has been striving to facilitate a well-rounded, robust internship experience for the approximately 1,300 to 2,000 students the Laboratory hosts per year.

Every year there is an influx of students for the summer and the Laboratory accommodates this with adding extra new student orientations Monday through Wednesday for six weeks. A Students’ Association executive member is present at every new student orientation session for these students to personally welcome them to the Laboratory.

One of our main focuses this year was on developing the existing Web site (<http://sa.lanl.gov/index.php>) as a stronger tool for new and year-round students. We added an interactive housing page, a FAQ page of commonly asked questions relating to student issues, a calendar of events page, as well as the student forum where students can connect with other students of similar interests.

The Students’ Association hosts several social events throughout the year, such as the annual mentor/student picnic each summer, movie nights, sporting events and student breakfasts, to name a few. SA also fosters a sense of academic advancement by assisting with the annual student and postdoc symposium that showcases student research in technical and nontechnical fields.

With the Laboratory going through a transition, we need to look to the future of this laboratory, and where better to look than the students. They represent the potential future work force. The Students’ Association hopes for a safe, secure (and fun!) summer for students, and we encourage student participation in some of the many events planned for this summer.



Kim Tait, Students’ Association chair

## Students’ Association Web site

<http://sa.lanl.gov>

- Housing • Contacts • Calendar •
- Professional Development •
- Social Activities • And More •

## Want to hire a Co-op student?

Contact  
Brenda Montoya  
at 7-4866

## Twelve receive science undergraduate internships

Twelve students are scheduled to intern at the Laboratory this summer through the Science Undergraduate Laboratory Internship program.

The paid-internship program, offered through the Department of Energy's Office of Science, offers an individually mentored research component and a set of enrichment activities to undergraduate students working at the Laboratory.

This is the second summer that the Laboratory has collaborated with the Office of Science to offer students the opportunity to further their professional work experience and academic goals with the SULI program. Students work with scientists and engineers on projects related to the Laboratory's current research programs and participate in lectures, classroom activities, career guidance and planning and field trips.

The 12 students are **Philip Barkhudarov** of the University of Utrecht in the Netherlands who will work in the Los Alamos Neutron Science Center (LANSCE); **Lukas Baumgartel** of the University of New Mexico will work in Neutron Science and Technology (P-23); **Robert Foresman** of Pomona College will work in Nuclear Design and Risk Analysis (D-5); **Jason Francis** of West Virginia University will work in the Materials Science and Technology (MST) Division; **Joseph Janosik** of the University of Dayton will work in Plasma Physics (P-24); **Ashley Jones** of Fisk University will work in the BioScience (B) Division; **Constance Roco** of the University of Virginia will work in the Center for Integrated Nanotechnologies (MST-CINT); **Christian Lytle** of University of St. Thomas will work in Theoretical Astrophysics (T-6); **Bryan Cort** of University of Waterloo will work at the National High Magnetic Field Laboratory (MST- NHMFL); **Stephen Grayson Daugherty** of Vanderbilt University will work in P-24; **Lianne Martinez** of University of Nevada, Las Vegas, will work in Information Technical Services (ENG-ITS); and **Sam Skillman** of Harvey Mudd will return to work with the Theoretical Division Office (T-DO).

## Lab selects four students to receive fellowships

Four Laboratory students are receiving fellowships with the National Consortium for Graduate Degrees for Minorities in Engineering and Science Inc. and the National Physical Science Consortium. The Laboratory began partnering with GEM in 1979 and with NPSC in 1989. To date, the Lab has sponsored more than 50 fellowships for students. The focus of both programs is to increase the number of United States citizens who earn advanced degrees in the physical and natural sciences and engineering fields. These fellowships provide internships and funding for students to complete their respective degrees.

### GEM Fellowship recipients

**Willie Montoya**, a Los Alamos High School graduate and Lab intern, is pursuing a master's degree in nuclear engineering from the University of New Mexico. He will work in PIT Disassembly and Nuclear Fuels Technologies (NMT-15) under the mentorship of **David Costa**.

**Robert Smith**, a former Lab intern and Students' Association chair, is pursuing a master's degree in materials science and engineering from the University of Florida. Smith will return to the Laboratory and work in the Materials Science and Technology (MST) Division.

### NPSC Fellowship recipients

**Leslie Sasa** is pursuing a doctoral degree in mechanical engineering from the University of California at Los Angeles. Sasa interned at the Lab last year and will work in the Lujan Neutron Scattering Center (LANSCE-LC).

**Manny Gonzalez** is completing his bachelor's degree in mechanical and materials engineering from the University of Texas, El Paso and will pursue a doctorate degree. Gonzalez is returning to the Lab this summer in Analysis and Testing of Complex Mechanical Systems (ESA-WR).

To learn more about GEM and NPSC, go to [was.nd.edu/gem/gemwebapp/public/gem\\_06\\_100.htm](http://was.nd.edu/gem/gemwebapp/public/gem_06_100.htm) and [npsc.org/about/](http://npsc.org/about/) online.

## Student calendar of events, summer 2006

This schedule is subject to change. For updates go to <http://sa.lanl.gov/calendar.php> online.

### May

- May 15, New Student Orientation, 8 a.m., Canyon Complex, Room 160 (offered every Monday, Tuesday, and Wednesday from May 15 to June 20 with the exception of Memorial Day)
- May 29, Laboratory closed for Memorial Day
- May 31, Curriculum Vitae workshop for graduate students, 9:30 a.m., Canyon Complex, Room 172

### June

- June 7, Student breakfast, 8:30 a.m., Research Library, Technical Area 3, Building 207
- June 15, LANL Student Night Out at Central Avenue Grill, time TBD
- June 17, Students' Association Field Day, Urban Park
- June 21, Student breakfast, 8:30 a.m., Technology Transfer, Technical Area 00, Building 1325
- June 26, All-student meeting with director, 2-3 p.m., location TBD
- June 27, Winning résumé workshop for undergrads, 8:30 a.m., Canyon Complex, Room 164
- June 28, Curriculum Vitae workshop for graduate students, 8:30 a.m., Canyon Complex, Room 172
- June 29, Student breakfast, 8:30 a.m., Otowi Building side dining rooms, TA-3
- June 29, Bandelier Tour, 9:30 a.m.-2:30 p.m., Bandelier National Monument

### July

- July 4, Laboratory closed in observance of Independence Day
- July 10, Students' Association elections begin
- July 11, Curriculum Vitae workshop for graduate students, 9:30 a.m., Canyon Complex, Room 172
- July 12, Winning résumé workshop for undergrads, 8:30 a.m., Canyon Complex, Room 165
- July 13, All-students picnic, Urban Park
- July 18, Student breakfast, 8:30 a.m., Wellness Center, TA-3
- July 20, Laboratory Student Night Out at Central Avenue Grill, time TBD
- July 27, Nicholas Metropolis Modeling and Simulation Center tour, 9 a.m.-noon

### August

- Aug. 2 and 3, Annual Student Symposium

## Top 15 things you must do in Northern New Mexico

1. Day hike and swim at East Forks, Jemez Mountains
2. Hike the big cave trail in Bandelier National Monument
3. Experience Santa Fe Plaza nightlife
4. Attend an art gallery opening at Museum Row, Santa Fe
5. Day trip to Taos Pueblo, Taos
6. Explore the Jemez Hot Springs
7. Go whitewater river rafting on the Rio Grande
8. Camp in the Jemez Mountains
9. Ride on the Sandia Peak Tramway
10. Eat at Northern New Mexico restaurants (Make sure to try the enchiladas and the sopaipillas!)
11. Tour the local wineries
12. Attend Spanish and Indian markets, Santa Fe
13. Bike in the Tour de Los Alamos and the Santa Fe Century
14. Listen to the local flavor at the Los Alamos summer concert series <http://www.gordonsconcerts.com>
15. Attend a Santa Fe Opera performance

## Resources for community events

### Newspapers

- Kaleidoscope, in the Los Alamos Monitor every Thursday
- Pasatiempo, in the Santa Fe New Mexican every Friday
- Venue, in the Albuquerque Journal every Friday
- La Vida, in the Albuquerque Tribune every Friday
- Santa Fe Reporter, comes out weekly on Wednesday

### Other

- Talk to locals on suggestions of things to try and the best places to eat
- The Student Association's Web site at <http://sa.lanl.gov> online
- Los Alamos Chamber of Commerce Web site at <http://losalamoschamber.com/> online

## Las Fiestas de Nuevo Mexico

- June 3 — SummerFest, Los Alamos Pajarito Ski Hill
- June 10 — Chamber Fest, Los Alamos
- July 8-9 — Santa Fe International Folk Art Market, Santa Fe
- July 8-10 — Fiesta de Valle de Espanola, Española
- July 21-23 — Las Fiestas de Taos, Taos
- July 29-30 — Santa Fe Spanish Market, Santa Fe
- Aug. 19-20 — Santa Fe Indian Market, Santa Fe
- Sept. 7-10 — Santa Fe Fiestas, Santa Fe



## Important numbers and Web sites

- Education and Postdoc Office: 7-4866
- 4myhr: 4-6947, new hires, salary issues, questions
- Benefits and Employment Services: 7-1806
- Training Services (PS-13): Training for students, 5-8644
- Badge Office: 7-6901
- Bradbury Science Museum: 7-4444
- Townsite — LA Bus Routes: [www.labus.org](http://www.labus.org)
- LANL Taxi: 7-TAXI (7-8294)
- Park and Ride commuter bus service: 1-866-551-7433
- LANS Transition Hot Line: 1-888-505-9292

# So... what do you think?

**Q:** Students will begin returning to the Laboratory this month for summer employment. What advice would you give to new and returning students to help make their stint at the Laboratory more productive and enjoyable?



**Larry Schultz of Subatomic Physics (P-25)**

Find a project that excites you and throw yourself into it. Try to get a result done during the summer, even if it is a small part of a bigger project.



**Janice Kleczka of Performance Surety Training Services (PS-13)**

My advice to returning students is to enroll for classes (at the Lab) before coming back. Classes fill up fast, especially during the summer — it is not always easy to get a spot in a class. Also, use the Lab student registration form.



**Marquita Romero, a graduate student in LANSCE User and Communication Office (LANSCE-USE)**

Ask questions on what type of work you will be doing. Participate in student activities. They are lots of fun, and you get to meet other people like you. Network as much as you can and make contacts for future student positions or full-time employment.



**Dianne Wilburn of Meteorology and Air Quality (ENV-MAQ)**

In Los Alamos, speeding is a bad idea. Be careful. Also, it is wise to eat dinner before 8 p.m. When you meet your mentor, ask him or her about a work plan. This will help set goals for what you want to achieve.



**Theresa I. Chavez of LANSCE-USE**

1) Contact your group to make sure they are ready for your return. (Provide your arrival date and end date.)  
2) Make prior arrangements for getting to and from work on time and setting up your work schedule. (Advise your group of summer vacation plans that will take you from the office, etc.)  
3) Make sure you are prepared to work as per your commitment to your group.



**Diana Duran of Occupational Medicine (HSR-2)**

Ask questions. Make each day a new beginning. Accept new challenges. Take part in student activities. Have fun. The surrounding areas have many beautiful sites.

## PEOPLE



Dylan Allegretti

Antonia Clifford



Alayna Rodriguez



Jose Castellano



Trevor Martin

## Los Alamos Employees' scholarship fund awards scholarships

by Sallie Boorman

Los Alamos High School senior **Alayna Rodriguez** is the recipient of the four-year, \$5,000-a-year platinum scholarship from the Los Alamos Employees' Scholarship Fund. The fund is administered through the Los Alamos National Laboratory Foundation.

In addition, **Dylan Allegretti** of Santa Fe Preparatory School, **Jose Castellano** of Pojoaque High School, **Antonia Clifford** of St. Michael's High School and **Trevor Martin** of Taos High School will receive four-year \$2,500-a-year gold scholarships.

Fifty-four high school seniors and college students received 2006 Los Alamos Employees' Scholarship Fund scholarships at an award ceremony luncheon in the Lumpkins Ballroom at La Fonda Hotel in Santa Fe.

The Los Alamos Employees' Scholarship Fund encourages Laboratory employees, retirees and subcontract personnel to donate to a fund that awards college scholarships to Northern New Mexico area students. Scholarships are awarded on the basis of grade point average, test scores, diversity, need, academic rigor, leadership and community involvement.

Seven different levels of scholarships are awarded, including platinum, gold, silver,

bronze, turquoise, Hewlett Packard and Leadership scholarships.

Eight students will receive four-year \$1,500 silver scholarships, 10 students will receive four-year \$1,000 bronze scholarships and seven students will receive one-year \$2,000 Hewlett Packard scholarships. Hewlett Packard donated \$14,000 toward Los Alamos Employees' scholarships. In addition, 20 students received a one-year renewable \$1,000 turquoise scholarship.

Again this year, the University of California is awarding four UC Nonresident Tuition Waiver scholarships. These renewable four-year scholarships give Northern New Mexico students who wouldn't qualify for UC in-state tuition through a different program, financial assistance to attend a UC campus at or closer to the in-state tuition rate, explained Tony Fox of the nonprofit Los Alamos National Laboratory Foundation. Priority is given to students from low-income families who are first generation college students.

The four students receiving the UC tuition waver scholarships are **Hallie Brown** of St. Michael's High School; **Anika Liljenwall** of University of California, Davis; **Jessie Bunkley** of University of California, Santa Cruz; and **Dahlia Musharrafieh** of Santa Fe High School.

Students receiving \$1,500 silver scholarships are **Jacinta Chavez** of Taos High

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## In Memoriam

### Larry Creamer

Laboratory retiree Larry Creamer died March 7. He was 65.

Creamer retired from Los Alamos in July 2004. He was working in Detonator Technology (DX-1) at the time of his retirement. Creamer joined Los Alamos in 1976 and also worked in the former Design Engineering (WX) and Dynamic Testing (M) divisions.

He is survived by his wife Sara and children Joan and David.

### Gary Melvin Worth

Laboratory retiree Gary Melvin Worth died March 15. He was 67.

A veteran of the United States Navy, Worth first joined the Laboratory in 1967 as an electrical technician in the former Nuclear Rocket Propulsion (N) Division. He later worked in the former Assay and Accountability (A), Energy (Q), Health and Safety (HS), Environment, Safety and Health (ESH) and International Technology (IT) divisions.

When Worth retired from the Lab in March 1999, he was a staff member in the former Nonproliferation and International Security (NIS) Division.

He is survived by sons Tom and Allan; a stepson, Michael Porter; and several grandchildren and step-grandchildren.

## Scholarship fund ...

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School, **Connie Gao** and **Yuan (Karen) Mei** of Los Alamos High School, **Jonathan Height** of New Mexico Military Institute, **Ingrid Lindquist** of St. Michael's High School, **Katherine Martinez** of Robertson High School, **Dahlia Musharrafieh** of Santa Fe High School and **Michelle Robinson** of Questa High School.

Receiving \$1,000 bronze scholarships are **Caitlin Armijo** of Santa Fe High School, **Frank Chen** and **Maria Analisa Sandoval** of Los Alamos High School, **Michael Elliot** of Robertson High School, **Anna Garcia** of Penasco High School, **Elisabeth Humphrey** of Santa Fe Indian School, **Dana Maestas** of Española Valley High School, **Jennifer Redman** of McCurdy School and **Randolph Winnegar** of Santa Fe Preparatory School.

The 20 winners of one-year, \$1,000 turquoise scholarships are **Teresa Alvarado** of Denver University; **Liza Birnbaum** of Santa Fe High School; **Jeffrey Brahe** of Monte del Sol Charter School; **Jessie Bunkley** of Colorado State University; **Katharine Dahm** and **Sydney Ryan** of New Mexico Institute of Mining and Technology; **Rebecca Gonzales** of New Mexico State University; **Rebecca Martinez**, **Ashley Reid** and **Stephanie Montoya** of the University of New Mexico; **Elena Gustafson**, **Sarah Harris** and **Abigail Worland** of Los Alamos High School; **Jessica Hammon** of the University of California, Santa Barbara; **Christopher Kempes** of Colorado College; **Anika Liljenwall** of University of California, Davis; **Victoria Macias** of St. Michael's High School; **Kristin Nichols** of Taos High School; **Amanda Salazar** of Pojoaque High School; and **Michael Unzueta** of Coronado High School.

The seven, \$2,000 Hewlett Packard scholarship recipients are **Andrea Gallegos** of West Las Vegas High School; **Andrew Meilstrup** of Capital High School in Santa Fe; **Rachel Mercer-Smith** of Los Alamos High School; **Chelsea Okamoto** of Taos High School; **Lindsey Ruth** of Dulce High School; **Natasha Woodards** of Robertson



### Student scholars recognized at banquet

*Pojoaque High School senior Jose Castellano talks with Laboratory Director Bob Kuckuck at the Los Alamos National Laboratory Foundation banquet in La Fonda Hotel in Santa Fe. Castellano is one of 54 high school seniors and college students who received scholarships through the Laboratory Employees' Scholarship Fund. Laboratory employees, retirees and subcontract personnel can donate to the scholarship fund; the annual fund drive continues through May 31 (see story below). Castellano, who works part-time in the Office of Technical Support (DX-TSO), received a gold scholarship, which provides \$2,500 a year in financial assistance for four years. Castellano plans to major in aerospace engineering at New Mexico State University. Castellano's mother, Frances, works in High Performance Computing (CCN-7), while his father, Lawrence works in Weapons Response (ESA-WR). Photo by LeRoy N. Sanchez*

High School; and **Caitlin Zimmerman** of Questa High School.

Four students are receiving Leadership scholarships of \$1,000. Recipients are **Rebecca Bustamante** of Española Valley High School; **Janna Nichols** of Boston University; **Robert Salazar** of Coronado High School; and **Matthew Sheldon** of Santa Fe High School. This fund was created to provide scholarship opportunities for Northern New Mexico students with significant financial need. These students also have demonstrated outstanding leadership qualities and achievements in their home, school and community.

Since the Los Alamos Employees' Scholarship Fund program began in 1998, more than 350 scholarships have been granted, according to Fox of the Laboratory Foundation. And Laboratory workers have donated \$1.3 million to the scholarship fund since its creation.

### Los Alamos Employees' Scholarship Fund drive campaign kicks off

by Steve Sandoval

The Los Alamos Employees' Scholarship Fund encourages Laboratory employees, retirees and subcontract personnel to donate to a fund that awards college scholarships to Northern New Mexico area students.

Lab workers have until May 31 to return completed forms to the nonprofit Laboratory Foundation offices in Española. Remittance envelopes will be included with pledge forms, which were mailed to all Laboratory workers at their mail stops the last week.

Payroll deductions start in September and will continue unless otherwise instructed by the donor. Employees can make changes to their pledge amounts by contacting the Laboratory Foundation.

Employees also can make a one-time donation; personal checks can be written to the Los Alamos National Laboratory Foundation. Lab personnel also can make pledges online by going to the foundation Web page at [www.lanlffoundation.org](http://www.lanlffoundation.org) online. Employees also can pledge through payroll deduction or with a Visa or Mastercard.

The LANL Foundation is a philanthropic grant-giving entity created in 1997. It supports a range of regional and community not-for-profit organizations.

For more information on the scholarship fund, write to Tony Fox of the Laboratory Foundation at [tfox@lanlffoundation.org](mailto:tfox@lanlffoundation.org) by e-mail or contact Debbi Wersonick of the Community Relations Office (CER-30) at 7-7870.



### Come Celebrate an Era with Pride and Honor 9:30 a.m. to 3 p.m. • Saturday, May 20 Administration Building, Technical Area 3

All University of California Lab employees, retirees and badged contractors are invited to celebrate 63 years of the University of California's service to the nation through its management of the Laboratory and to help dedicate the new National Security Sciences Building (NSSB).

All Lab workers and retirees may bring up to five guests.

#### Entertainment and activities

NSSB dedication and the Pentagon Memorial unveiling  
Exhibits, demonstrations and live entertainment  
Free lunch and self-guided NSSB tours

For more information and to pre-register, see the event Web page link on the Laboratory's internal home page or on the Daily Newsbulletin.



# Mathematical code for inverses wins top prize for Manzano high student team at Supercomputing Challenge

by Steve Sandoval

A pair of budding mathematicians from Albuquerque Manzano High School who wrote mathematical codes typical of those used in cryptography and mathematical error correction captured the top prize during awards ceremonies for the New Mexico Supercomputing Challenge held at the Laboratory.

Kristin Cordwell and Chen Zhao's project, "Finding Inverses in Finite Fields," earned the students a \$1,000 U.S. Savings Bond, while their teacher, Steve Schum, received a projection system for his classroom. The team's mentor is William Cordwell, a Sandia National Laboratories staff member. The Manzano High team also received the Cray High Performance Award.

Now in its 16th year, the Challenge is open to any New Mexico high-school or middle-school student. Over the past year, more than 200 students from 24 schools around the state researched thorny scientific problems, developed sophisticated computer programs, learned computer science with mentors from the state's national laboratories and other organizations and got the opportunity to run their programs on some of the world's most powerful computers.

The goal of the year-long event is to increase knowledge of science and computing; expose students and teachers to computers and applied mathematics; and instill enthusiasm for science in middle- and high-school students, their families and communities. Participating students improve their understanding of technology by developing skills in scientific inquiry, modeling, computing, communications and teamwork.

A Las Cruces High School team earned second place in the competition for their project, "Can You See the Hot Spots?" a computer program that scans a bone scan pixel-by-pixel for hot spot areas, eliminating the need for radiologists to search a bone scan for hot spots, potentially cancerous areas in bones.

The team of Julia Silva, Daniel Parrott, Alan Hshieh and Jerry Yeh each won a \$500 Savings Bond. Their teacher, Greg Marez, received an HP camera printer with extra memory and software. The team's mentor was Puneet Ghei. The team also won the Albuquerque Tribune's Lighthouse Award for best overall presentation and a Student's Choice special award selected by students and teachers.

Three teams won honorable mention awards and will receive a U.S. Savings Bond. A team from Las Cruces' Onate High School, were recognized for their project "Expanding on the Pythagorean Theorem." Team members Brett Beckett, Kevin Christeson, Kyle Fitzpatrick and Meghan Scott also received the Creativity and Innovation Award from Sandia National Laboratories.

Another honorable mention went to the Rio Rancho High School team for "Analytical Fire Modeling: Fire in its Environment." The team consists of Nicholas Kutac and Christopher Morrison. The team also received the Best Written Report award from the Society for Technical Communications.

The third honorable mention award went to the Albuquerque St. Pius X High School team of Ryan Loyd, Matthew Paiz and Mark Wunsch for their project, "Dynamic Software Evolution: An Evolutionary Approach to Artificial Intelligence."

Several Challenge participants got a boost for their educational dreams thanks to their outstanding work on Challenge projects. A total of about \$95,000 in individual scholarships — \$80,000 from Los Alamos' Computing and Computational Sciences (CCS) Division — were awarded.

Scholarship winners were

- William Downs, Las Cruces High — New Mexico State University, \$2,500
- Kyle Kitzpatrick, Las Cruces Onate High — Intel Corp., \$2,500
- Samantha Stutz, Los Alamos High School, Los Alamos National Laboratory, \$10,000 a year for four years
- Nicholas Kutac, Rio Rancho High School, Los Alamos National Laboratory, \$10,000
- Michael Scott, Melrose High — Eastern New Mexico University, \$2,000, Monte Mitzelfelt Memorial Scholarship, \$1,000
- Stephanie McAllister, Albuquerque Manzano High, Los Alamos National Laboratory, \$10,000
- Matthew Paiz, Albuquerque St. Pius X High School, Los Alamos National Laboratory, \$5,000
- Ryan Loyd, Albuquerque St. Pius X High School, Los Alamos National Laboratory, \$5,000
- Mark Wunsch, Albuquerque St. Pius X High School, Los Alamos National Laboratory, \$5,000
- Raquel Hill, Navajo Preparatory School, University of New Mexico, \$2,500
- Rochelle Vander, Navajo Preparatory School, New Mexico State University, \$2,500



*Kristin Cordwell, left, and Chen Zhao, Albuquerque Manzano High School captured the top prize at this year's Supercomputing Challenge.*



*A Las Cruces High School team earned second place in the competition. From left to right are Julia Silva, Alan Hshieh and Daniel Parrott. Not shown is Jerry Yeh. Photos by LeRoy N. Sanchez*

- Jane Kim, Las Cruces Onate High School, Los Alamos National Laboratory, \$5,000.

At Los Alamos, students presented their research to a team of volunteer judges and discussed poster displays of their computing projects. They also toured the Laboratory's supercomputing centers and heard talks and demonstrations by Laboratory researchers.

Supercomputing Board President William Blackler and Regis Pecos, chief of staff to Speaker of the House Rep. Ben Lujan, D-Santa Fe, presented awards, which also was attended by State Rep. Jeannette Wallace, R-Los Alamos, Sandoval.

U.S. Sen. Jeff Bingaman, D-N.M., also sent a video message to the students.

The Governor's Award was presented to Richard Allen, a retired Sandia National Laboratories staff member now with the University of New Mexico, past member of the Challenge's Board of Directors.

Special awards included the Ben Lujan Leadership Award, which went to Irene Lee and Nick Bennett for their support of the Challenge's management team.

The original New Mexico High School Supercomputing Challenge began in 1990. It merged with Adventures in Supercomputing in 2002 to create the Adventures in Supercomputing Challenge.

The Supercomputing Challenge is sponsored by the Laboratory and the New Mexico Legislature. Educational Partners are the Council for Higher Education Computing Services Inc., Eastern New Mexico University, MIT StarLogo, New Mexico Highlands University, New Mexico Institute of Mining and Technology, New Mexico Public Education Department, New Mexico State University, San Juan College, Santa Fe Community College, Santa Fe Institute and the University of New Mexico.

To view a complete list of prizes other student supercomputing projects received, go to the Daily Newsbulletin at [http://www.lanl.gov/news/index.php?fuseaction=nb.story&story\\_id=8295&nb\\_date=2006-04-26](http://www.lanl.gov/news/index.php?fuseaction=nb.story&story_id=8295&nb_date=2006-04-26) online.