

# The Interaction Point

Events and Happenings  
in the SLAC Community  
February 1996 Vol. 7, No. 2



## SLAC Theorists Predict Hydrogen Antiatoms



Stanley Brodsky (left), Ivan Schmidt (center), and Charles Munger (right).

by P.A. Moore

WITH ANTIATOMS now being produced in the laboratory, the antiworld may be here. An atom of antihydrogen was produced at the CERN laboratory in Europe recently, but the theory behind its production belongs to SLAC. In 1993, Stanley Brodsky and Charles Munger (SLAC) and Ivan Schmidt (Universidad Federico Santa Maria, Chile) published a paper that described a process to create an atom of antihydrogen. An ordinary hydrogen atom has one positive proton being orbited by a negative electron; with an antihydrogen atom, this is reversed.

The international team of CERN scientists lead by Prof. Walter Oelert took negatively charged antiprotons and passed them through a gas. Some of the antiprotons passed through the gas unaffected, while others interacted with the gas to form electron-positron pairs. Most of the antiprotons and positrons moved out of the gas and went their separate ways; but in a few rare instances, a positron was attracted to the antiproton.

How important is this discovery of laboratory-created antimatter? With three-fourths of our universe composed of hydrogen, scientists study this element to learn about our universe. The study of antihydrogen affords science the opportunity to continue research on the symmetry between matter and antimatter.

According to Munger, "Our theories of matter demand that the

frequencies of light emitted by hydrogen and antihydrogen be exactly identical; any deviation of nature's true law from our theory would have profound consequences." Munger and his colleagues will test this hypothesis by measuring the Lamb shift in hydrogen in future Fermilab experiments.

Can scientists now see the antiworld in this atom of antimatter? A poetic question, anticipated by William Blake (1757-1827).

"To see a world in a grain of sand  
And a heaven in a wild flower,  
Hold infinity in the palm  
of your hand  
And eternity in an hour."

—*Auguries of Innocence*

### Not since the beginning of the Universe...

Physicists announced January 4 that they had created the first atoms of antimatter. Here is how they did it:

#### Antiprotons pass through ...

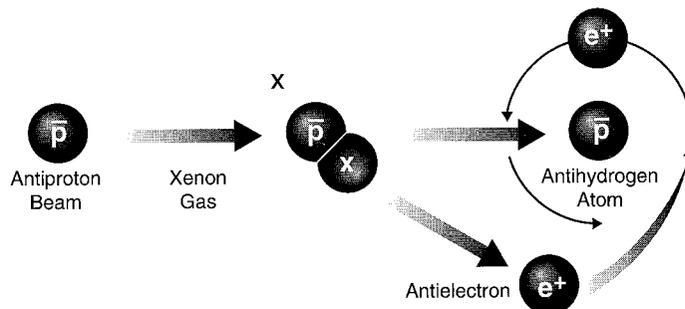
A beam of antiprotons (negatively charged protons) is shot into xenon gas.

#### ...Xenon gas, creating antielectrons that can combine with...

Some pass through unaffected while others interact with the xenon to form antielectrons (positively charged electrons). They normally exit the gas in separate paths.

#### ...Antiprotons, to create antimatter.

In very rare instances, the antielectrons are attracted to, and begin to orbit, the antiprotons, creating antihydrogen.



Adapted from NY Times 1/5/96

# Sherwin helps create Red Cross Web site

THE FAMILIAR RED CROSS surrounded by easy-to-follow graphic instructions introduces Internet surfers to the National American Red Cross (Red Cross) World Wide Web (WWW) site (<http://www.crossnet.org>). Hyper-text links quickly lead users to important emergency information (such as disaster preparedness instructions and local blood drive schedules) and up-to-date facts about Red Cross activities in such diverse places as Bosnia, the Virgin Islands, and Marin County. The site was the brain child of Greg Sherwin (Software Engineer in the Controls Department) and his friend, Gunjan Sinha (Parsek Communications).

Greg, a disaster services volunteer for eight years, felt that creating a Palo Alto Chapter WWW site seemed an excellent way to educate volunteers and donors, promote Red Cross services, provide a means of communication between volunteers and chapters, and actively show the public where their donations were going. In addition, chapter information normally found in a monthly newsletter could be updated instantaneously on the Web.

While experimenting with the WWW, Greg stumbled across Gunjan, another Red Cross volunteer, who was also working on a WWW site. In true Silicon Valley fashion, the two began to meet over bottomless cups of cafe latté and multigrain muffins, furiously writing down their ideas on used napkins. They pooled their napkin data, along with other ideas and resources, to launch a national WWW site for the Red Cross and its 2,400 chapters.

Greg and Gunjan initially used their own money to buy and assemble the necessary computers and computer network, and creat-



Greg Sherwin

ed most of the site's components. They wrote software and carefully constructed WWW pages that would be user-friendly and provide important, interesting information.

Greg became the system administrator, maintaining the site, updating local information on blood drives, sending information from National Headquarters about volunteers in Oklahoma City after the Oklahoma City bombing, and fielding an odd assortment of compliments, suggestions, and requests, from site users. For example, a family who had last heard of their grandfather in China during World War II wanted to know if the Red Cross could help to locate him.

After the site was featured in a prominent charity-oriented journal article, the idea caught on at the Red Cross National Headquarters in Washington, and money was allocated to upgrade the system and purchase a server. This meant that Greg and Gunjan could expand their services, apply new technologies, track user questions, and access data. Other chapters

flooded them with requests for tips on how to set up their own sites. Today, Red Cross chapters all over the world are linked to each other on the WWW.

Greg and Gunjan relinquished control of the local site to the National Headquarters in the summer of 1995, although they still maintain the site and contribute to its content.

In addition to expanding the notion of volunteerism, Greg has obtained intellectual fulfillment from the experience of creating a WWW site. His greatest satisfaction came from finally being able to apply his computer knowledge to assist the Red Cross. Greg's efforts have also brought him fame, though not fortune—look for his insights into designing and maintaining Web sites (and a mug shot to boot) in the upcoming book *Secrets of the Webmasters*, by Charles Deemer, published by Resolution Business Press, Inc.

—Ann McKillop

## Welcome Guests and New Employees

**Michael Benes**, Mechanical Fabrication; **Martin Byrd, Jr.** Mechanical Fabrication; **Michelle DeCamara**, Environmental Protection & Restoration; **Marcos Esterman, Jr.**, Accelerator Theory & Special Projects; **Alexandr Korol**, Experimental Group E; **Jeff Lwin**, PEP-II B Factory; **Gregory Maudsley**, Accelerator Operations; **Nancy McNiel**, Technical Information Services; **Phillip Nguyen**, BaBar; **Noritsugu Oishi**, Experimental Group A; **Gary Peterson**, Mechanical Fabrication; **Glenn Scheitrum**, Klystron; **John Schmerge**, SSRL; **Alfred Suarez**, Mechanical Fabrication; **Joseph "Jay" Venti**, Mechanical Fabrication Administration; **Stephen Weathersby**, Accelerator Operations.

# Lana and Alexander

THINK PITCH-BLACK darkness. Extreme claustrophobia. Sweaty, warm breath you can only sense, not see. For vacationing Lana Smith of the Facilities Department and her friend Greg, these were sensations experienced while hurricane Alexander blew over Cozumel, a small island off the coast of Mexico.

Lana, Greg, and the other guests were warned by the hotel staff that Alexander was approaching at 128 mph, only two days after their arrival. Since there was no question of leaving the island safely, Greg and Lana got as much information as they could and then created a refuge in the safest place—their windowless bathroom. They taped their hotel room windows to prevent broken glass from flying into the room, arranged bedding on the bathroom floor, and barricaded the door with the mat-

tress. Then they waited. Lying in cramped positions, in silence, and complete darkness.

The storm began with a shrill noise like an approaching freight train, quickly followed by the sound of roof tiles scattering, windows shattering, and their neighbors' screams. Their ears popped from the sheer pressure of the wind. The doors bowed in and out and threatened to break any minute. Despite the strong wind, Lana and Greg began to sweat uncontrollably. To keep sane, they kept telling themselves that they had done all they could to be safe and would come out of the experience alive and well. Still, the combination of stress and boredom was unbearable.

The hurricane blasted the island continuously for 18 hours. When it was all over, Lana and Greg realized just how much their

extra precautions had paid off—they were shaken, stiff, and hungry but unhurt. Only two sets of windows in the entire hotel remained intact—theirs was one of them. People who had not taken extra precautions were injured by flying glass and were drenched during the entire storm. Lana and Greg walked around in a daze, seeing the devastation that littered the streets and wishing they had stayed home.

Although the recent Bay Area storms gave her a sense of déjà vu, thoughts of the hurricane rarely enter Lana's mind, perhaps because she did all she could to be safe and keep control over the situation. Lana's advice to others in a similar predicament: Don't lose your head, follow emergency instructions precisely, and avoid tropical islands during the hurricane season.

—Ann McKillop

## Disaster tips for businesses and organizations

KAREN McCLENAHAN, Personnel Department staffer and member of SLAC's Public Information Team, recently attended a disaster conference in San Francisco with several other members of SLAC's emergency organization to get ideas to apply to SLAC's program.

Karen was particularly impressed with one of the featured speakers, Florence Rogers, CEO of the Federal Employees Credit Union in Oklahoma City. Eighteen of the Union's 30 employees died in the bombing of the Federal Building in April of last year, seven of them in front of Rogers, who received only minor bruises. Despite the traumatic experience she had just been through, Rogers kept herself busy, getting her workplace back in order. At the meeting, she addressed disasters from a business recovery standpoint. How do businesses continue to function after a major disaster?

What precautions can administrators take to ensure that personnel will be paid and clients will receive the needed services?

Some of Rogers' suggestions included:

- Have a viable, well-practiced disaster plan.
- Store copies of important items (such as personnel files, signature cards, vacation records, forms, computer codes, and other personal codes that are needed to access information) off site, in a safe place.
- Provide simple instructions on how to do critical, highly skilled jobs, in case personnel who know how to perform these tasks are unable to do so.
- Organize a telephone chain to provide updates for personnel and clients after the disaster.
- Provide cross training for employees before a disaster strikes.
- Ensure that trainers will be available

after the disaster to train new personnel or retrain existing personnel to perform critical tasks.

- Be a part of a support network of similar institutions that will be able to provide logistic and personnel support during and after an emergency. For example, after the Oklahoma City bombing other credit unions helped the Federal Employees Credit Union get vital services back up and running within 48 hours.

Rogers stressed personal responsibility as well as team effort during a crisis. She illustrated a major tenet of disaster recovery: get busy, be useful, think of others, and your own recovery will be speeded up.

While SLAC has already implemented many of these suggestions, they're also good advice for your personal preparedness so you'll recover faster in the event of a disaster.

—Ann McKillop

# In Memoriam

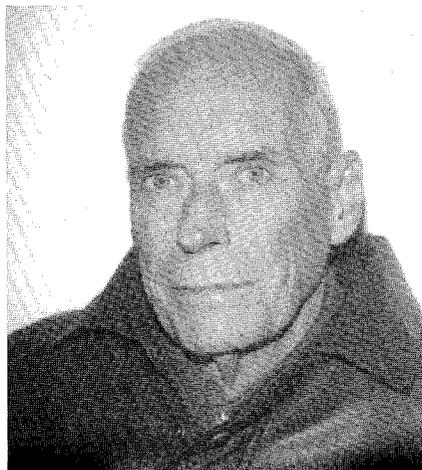


**Deborah Dixon**

DEBORAH DIXON died January 27 after a lengthy illness. She was 44. Debbie started working in SLAC's Personnel Department in 1968 while she was a senior in high school. Later she moved to the Accounting Department, where she worked in Accounts Payable and Payroll for many years. In 1988 Debbie transferred to the Research Division, where she was a program planner.

A funeral mass attended by more than 300 people was held on February 1 at St. Francis of Assisi Catholic Church in East Palo Alto. Friends, family, and community leaders attending the service testified to Debbie's interest in people and her commitment to her community.

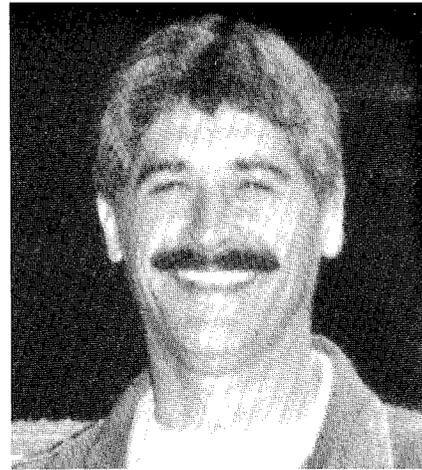
A tree will be planted in Debbie's memory at SLAC. For information about the tree, call Cindy Imelli at ext. 4243. The family has asked that donations be made to a scholarship fund established by the alumni of Ravenswood High School. Donations to the scholarship may be sent to Ravenswood High School Alumni Association, Inc., c/o Ms. Martha Hanks, 1184 Laurel Avenue, East Palo Alto, CA 94303-1015. Debbie is survived by her husband Louis Charles, her sons Duane and Jason, and a granddaughter.



**Richard Early**

RICHARD EARLY died on January 4 of pneumonia. He was 61. Dick received his BS in Engineering Physics from the University of California, and his master's in physics from San Jose State University. Dick began working at SLAC in 1965 as an experimental physicist in the Research Division. In 1975 he transferred from the Research Division to the Technical Division, where he remained until his death. Over the years, Dick concentrated more and more on magnet programs, becoming a world expert in the design of magnets of all kinds, so much so that he was considered by many to be one of the foremost magnet designers in the world. "He had an intuitive understanding of the properties of iron in magnetic fields. He left his mark on the end stations, in the beam switch yard, on PEP, in SLC—in other words, everywhere magnets are used at SLAC," reminisced Steve St. Lorant of Experimental Facilities.

A memorial gathering was held on February 7, where friends and colleagues remembered Dick for his kindness, his helpfulness, and his corny jokes. A tree will be planted at SLAC in Dick's memory. Dick is survived by his wife Joan, a daughter, and two sons.



**Frank Menezes**

FRANK MENEZES died at his home of a heart attack on December 24, 1995. He was 43 years old. Frank started working at SLAC in 1972 in the labor pool. He moved to the Purchasing Department, became an assistant Stores manager in 1985, and was made assistant manager of Metal Stores in 1989.

Frank is remembered by his supervisor Jerry Belk as "One of the most-loved persons at SLAC. Everyone respected him for his high moral character." Friends and colleagues reflected a similar recollection of Frank, "If you had a problem or just needed someone to talk to, Frank was always there to listen and offer you support. He will be missed."

An avid gardener, Frank loved to take care of his many roses. A fragrant rose tree, called "French Perfume," was planted in Frank's memory in front of Building 81, and a dedication ceremony was held in February. Frank is survived by his wife Jill, their two children, Brandon, 5, and Matthew, 3, and by his daughter, Cindy, from a previous marriage. Anyone wishing to make a contribution to the family can contact Leslie Normandin at ext. 4350.

# Winter recital lifts lab spirits

THE STANFORD String Quartet performed to an almost-full house at the SLAC Auditorium on January 30. Friends and spouses joined the staff for this special noon recital including Beethoven's *Quartet Opus 95* ("Serioso") and Ravel's *String Quartet*.

In the spirit of the Super Bowl, the quartet was honored at half-time. SLAC's Deputy Director and the quartet's friend Sidney Drell presented the group with a coveted beam tree that he described as "our dance of particles in the key of e<sup>-</sup>." According to violinist Susan Freier, this award will join a framed copy of their first program on Ben's shelf in the quartet's practice room.

The melodic interpretation of Beethoven's *Opus 95* wound to crescendos and enraptured the audience. Aficionados and newcomers to the classics listened to this lively mid-winter concert with heads nodding and toes tapping. Following the concert, Pisin Chen (Accelerator Theory & Special Projects) and Max Dresden (visiting scholar) agreed that "the third movement of Beethoven was very powerful." Greg Loew (Technical Division) felt the first selection was "very sad." An enthusiastic



Photo courtesy of Stanford String Quartet

*Stanford String Quartet members. Violinists Phillip Levy and Susan Freier, violist Benjamin Simon, cellist Stephen Harrison.*

Gene Holden (Operational Health Physics) thought aloud, "They were wonderful! What a nice way to spend lunch."

After Beethoven vibrated their mutes off, the quartet put them back on for Ravel in the key of F. According to violinist Phillip Levy, Ravel's only string quartet was "received with extremely mixed reviews" at the time it was written. The quartet played the first movement, pausing briefly to turn their sheet music. The second movement was played *pizzicato*—"with lots of plucking." The third

movement was slow, featuring "lots of viola," giving Stephen Harrison (a founding member of the quartet) a chance to display his dexterity before the fourth and final section. The features most enjoyed by the audience were quite challenging to the performers whose smooth interactions belied the difficulty of the piece.

Exuberant lab staff members commented on the success of the event. Suggestions for future cultural events ranged from Lively Arts performances to a monthly music series. "I think we should do this once a week," exclaimed an excited Brad Youngman (Experimental Facilities Department). Roger Erickson (Accelerator Department) wondered, "Do they do this just for fun?" and Jan Crehore (Mechanical Design) sighed, "That was really wonderful!"

If you have suggestions or contacts for a March noon-time event, please call Nina Stolar (ext. 2282) or send e-mail to [nina@slac.stanford.edu](mailto:nina@slac.stanford.edu). The winter quarter is a splendid time to present staff with something to lift our spirits and this delightful performance certainly did the trick.

—Nina Stolar

## Lab Trek 1996

THE PUBLIC AFFAIRS OFFICE is continuing to offer monthly staff tours, modeled after its special tours for VIP visitors. The general SLAC tours offered for staff members unfamiliar with the site include an orientation covering the physical site as well as some history of lab facilities. Following a short talk, the bus transports the group to many areas of the lab. Attendees are requested to wear flat, comfortable shoes and are welcome to bring cameras.

Staff who have taken one of the general tours (which include an orientation talk and visits to the Klystron Gallery, the hill over the Research Yard, and the SLD experimental hall), may subsequently attend one of the Staff Accelerators Tours, which are scheduled only occasionally, and which include SPEAR/SSRL, the B Factory, and

the Next Linear Collider (NLC). On these tours technical hosts explain the equipment and describe current research efforts. The exact stops vary due to operational runs.

To sign up for a general SLAC tour or one of these special tours, please call the Public Affairs Office (ext. 2204).

—Nina Stolar

Tour	Date	Time	Meeting Room
Accelerators	February 22	1:00 PM	Auditorium
Accelerators	March 21	9:00 AM	Auditorium

# Necessary and Sufficient standards

THE ENVIRONMENT, SAFETY, and Health (ES&H) Division recently conducted a process, specified by the DOE Standards Committee, to define SLAC's environment, safety, and health standards. These standards are both *necessary* (because of regulation) and *sufficient* to ensure that the SLAC ES&H program will meet the goals of SLAC management.

It is expected that this Necessary and Sufficient (N&S) process will result in a modification of the SLAC contract to include a defined set of standards. The SLAC set of standards includes all the federal and state regulations that apply to SLAC operations. Although very little will change operationally because of this N&S process, it has allowed SLAC to eliminate the DOE orders that specify how we are to comply with these standards.

## New citizen



Evelyn Eldridge-Diaz

ON JANUARY 9 Maria Lombera became a naturalized US citizen, a goal she has worked toward for five years. Lombera, who is employed by the Diamond Janitorial Service, has worked at SLAC since 1986, first in Building 24 (ES&H) and more recently in Building 40 (Central Lab). Lombera's next goal is to get her college degree.

—Evelyn Eldridge-Diaz

SLAC will now have more freedom to manage its ES&H compliance, and it is expected that the burdens of DOE oversight will be reduced.

During the N&S process, the ES&H staff solicited comments and suggestions from SLAC about the ES&H standards that should apply. The staff were also asked their opinion about how well the ES&H program functions. Over 20 individuals responded, providing comments on medical services, training, electrical and laser safety requirements, self assessments, chemical inventories, and general attitudes. All concerns are being considered, though some will take longer to address. The following concerns have already been addressed by the ES&H management.

### Medical Services

*SLAC needs a wellness program.*  
A wellness program already

exists at SLAC and plans are being made to improve the program. The Stanford University program is open to all SLAC employees. The Stanford health care providers also offer wellness programs.

*There are no first aid kits in the workplace.*

First aid kits are not provided because:

- ❖ Medical must be informed of all workplace injuries.
- ❖ The seriousness of an injury is not always obvious.
- ❖ A tetanus booster may be needed.
- ❖ Individuals may not be adequately trained in first aid.

Stores will stock a supply of Band-Aids™ to use on minor cuts and scrapes until medical attention is obtained.

See **N&S**, page 7

## Radio communications exercises

RADIO COMMUNICATIONS supply vital links between emergency response personnel, and provide the lifeline for activating emergency control plans and coordinating search and rescue efforts during an emergency. The Main Control Center (MCC) serves as the headquarters for emergency radio communications at SLAC. To ensure that all emergency radio communications equipment is working correctly, an MCC operator tests the equipment once a month. The operator sits at a desk in the conference room at the MCC, surrounded by color-coded radio terminals and telephones. At a specified time, the operator uses various radio frequencies to contact emergency locations throughout the site, including the Security Department, ES&H, Plant Engineering, the Medical Department, the SLAC Fire Station,

and the Stanford Emergency Operations Center. Personnel at each of these centers, who respond to the operator to confirm that the system is working correctly, must receive on-the-job training or take the ES&H Radio Communications Course (Course #104). When an emergency occurs, emergency contact personnel can also be reached by other radio frequencies, by telephone hot lines that ring automatically at each contact location, or in person. If problems arise during the testing, they are noted on report forms and repaired as soon as possible.

Monthly emergency exercises ensure that essential equipment and personnel will be ready in the event of an emergency, when time is of the essence.

—Ann McKillop

**N&S**, continued from page 6.

## Training

*Too much training is required.*

Generally, SLAC has offered ES&H-related training based on requirements stipulated in statutes, regulations, and DOE Orders. Training requirements for employees are determined by supervisors, who have the Task Hazard Survey available to guide them.

*Too much time is required for Radiological training.*

ES&H is working to reduce the time requirement, particularly for retraining. In addition, ES&H is offering self-study guides, computer-based training options, and challenge exams for qualified people.

*Radiological course content level was sometimes inappropriate.*

It is difficult to provide training at a level that will challenge everyone in a work force as diverse as SLAC's. The course content is continuously evaluated based on requirements and course evaluations.

## Electrical and Laser Safety

*Safety requirements are greater at SLAC than at other facilities.*

In reality, the electrical and laser safety requirements at SLAC are consistent with the Federal Occupational Safety and Health regulations, the National Electrical Code, and American National Standards Institute standards. If you think there are more practical ways to apply these standards, the ES&H staff welcomes your specific suggestions.

## Self Assessment

*The Self Assessment process is too time consuming and redundant.*

Self Assessment at SLAC has been implemented in a manner consistent with past DOE expectations. The self assessment program

will be redesigned to make it relevant to the N&S set and more useful for SLAC.

## Chemical Inventory

*The annual inventory is unnecessary.*

Annual chemical inventories are a regulatory requirement with which SLAC must comply.

## General Attitudes

*SLAC displays a lack of trust in its employees by requiring excessive and complex ES&H rules.*

The requirements of the ES&H program are determined by regulations, national codes, or consensus standards. It may be possible to improve the implementation of those requirements at SLAC. This requires communication between the ES&H staff and the staff of the line organizations, and cooperation in the implementation of the ES&H program.

*ES&H staff should get into the field more often to effect this communication and cooperation.*

ES&H staff have been directed to do just that and you should be seeing evidence of increased interaction. The ES&H performance at SLAC to date has been comparable with the top 25% of industries performing similar functions. With open communication and cooperation from all personnel, this is expected to continue.

—Ken Kase

Friends and colleagues of Professor Emeritus Joseph Murray were saddened to learn of his death on January 29. A memorial article will be published in the March *Interaction Point*.

# Safety tip of the month

LAST MONTH we suggested World Wide Web sites for information on assessing your own vulnerability to earthquake hazard and on mitigating the damage from and preparing for an earthquake.

This month's top picks are for general emergency information. First, the home page of the American Red Cross (with SLAC's own Greg Sherwin, of MCC, serving as the volunteer web master [see story, p. 2]).

<http://www.crossnet.org/>

We also recommend the home page for the Federal Emergency Management Agency (FEMA).

<http://www.fema.gov/>

Both locations provide a wealth of information on classes, preparing for and recovering from disasters, and information on current large emergencies.

—Rich Huggins

## SLAC Pub numbering changes

BEGINNING JANUARY 1996 SLAC PUBS and SLAC Reports will no longer contain the year in their identifying numbers. The SLAC Pub number displayed on the upper-right-hand corner of the Pub title page should be written as **SLAC-Pub-xxxx**, with the month and year of publication appearing below it. The identifying numbers for Technical Notes (TN) will keep the same style as before, that is, **SLAC-TN-96-xx**.

—Crystal Tilghman

# New assistant to the Director

P.A. MOORE was appointed in January to the position of Assistant to the Director for Public Affairs. Moore has been at SLAC for three years working primarily in education. Her new responsibilities include media relations and special projects. Her special interest is to increase the public's awareness of SLAC's outstanding science research.



P. A. Moore

Donal Davoran

## Physician predesignation

IF YOU EXPERIENCE a work-related injury or illness and would like to receive medical care from your personal physician, please stop by the Medical Department (A&E Building, Room 137, ext. 2281) to fill out a Physician Predesignation Form. If you have not filled out this form, you must

obtain all medical care for the first 30 days of treatment of a work-related injury or illness from the Stanford Prompt Care Unit at the Stanford Hospital or the Occupational Health Department of the Palo Alto Medical Clinic. After 30 days, you may seek medical care with a doctor of your choice.

—Sharon Haynes

## Training Opportunities at SLAC

THE WINTER/SPRING issue of *Training Opportunities at SLAC* is now available on the WWW at <http://www.slac.stanford.edu/pubs/slaonly/trngopp/trngopp.html>. In addition to the usual sections on ES&H, Wellness, and Professional

Development courses, the current issue also contains a new section on Computer Education at SLAC, also available on the WWW at <http://www.slac.stanford.edu/comp/edu/edu.html>.

## St. Patrick's Day with Kevin Carr

*A Traditional Irish Folktales Session*

YOU DON'T want to miss this wonderfully captivating story-telling session. Kevin's last performance at SLAC received rave reviews. While telling these folktales, Kevin artistically plays his fiddle, bagpipes, or drum.

—Sylvia Ong

**When:** March 12,  
12:00 to 1:00 PM

**Where:** Training and Conference Center  
Quad C/D

All meetings are held in the Orange Room, unless another location is listed. Larger meetings and conferences have a contact listed. Please notify the Public Affairs Office of any updates (send e-mail to [nina@slac.stanford.edu](mailto:nina@slac.stanford.edu) or call ext. 2282).

**March 1-2**  
Stanford Parents Weekend  
Site Tours

**March 4-8**  
SLD Week (TBA)

**March 8**  
SLUO Executive Committee

**March 8**  
E-155 Collaboration Meeting  
Training and Conf. Center  
R. Arnold, American U.

**March 9**  
E-154 Collaboration Meeting  
Training and Conf. Center  
E. Hughes

**March 12, 12 Noon**  
Celebrate St. Patrick's Day  
Training and Conf. Center—C/D  
S. Ong

**March 13, 1:30 PM**  
SLAC Web Users Group Meeting  
SCS Conf. Room

**March 14-15**  
BaBar Technical Board

**March 16**  
BaBar Executive Board

**March 18-22**  
SLAC Leadership Training  
Training and Conf. Center

**March 18-22**  
NLC ZDR Review  
J. Rees, D. Burke

**March 18-22**  
APS General Meeting  
St. Louis, MO

**March 19, 8:00 AM-2:00 PM**  
SUBB Mobile Blood Drive  
Auditorium Lobby

**March 19, evening**  
20-30 Year Service Awards  
Faculty Club

**March 21, 7:00 PM**  
Bay Area Object-Oriented  
Interest Group  
Auditorium

**March 21, 9:00 AM**  
Staff Accelerators Tour  
Auditorium

**March 23, 2:00 PM**  
Optimist Club Meeting

**March 25, 1:30 PM**  
Building Managers Training  
Cooperative  
Training/Conf. Center—A/B

**March 25, 7:00 PM**  
OS/2 Users Meeting  
Auditorium

**March 26-28**  
DOE PEP-II Lehman Review

EVENT CALENDAR