

ON TARGET

THOMAS JEFFERSON NATIONAL ACCELERATOR FACILITY • A DEPARTMENT OF ENERGY FACILITY

Cancer imaging

*technology developed at JLab
undergoes GWU clinical trials*

Science Bowl comes to

*Lab; competitors prepare for
regional tourney*

Hall C experiment results

*provide evidence for onset of
quark effects*

Hall B experiment

data taking complete

Lab gives back to

*community through donations,
volunteer work*

JAG gears up for

holiday activities

Christoph Leemann takes helm of Lab; earns praise from DOE, SURA

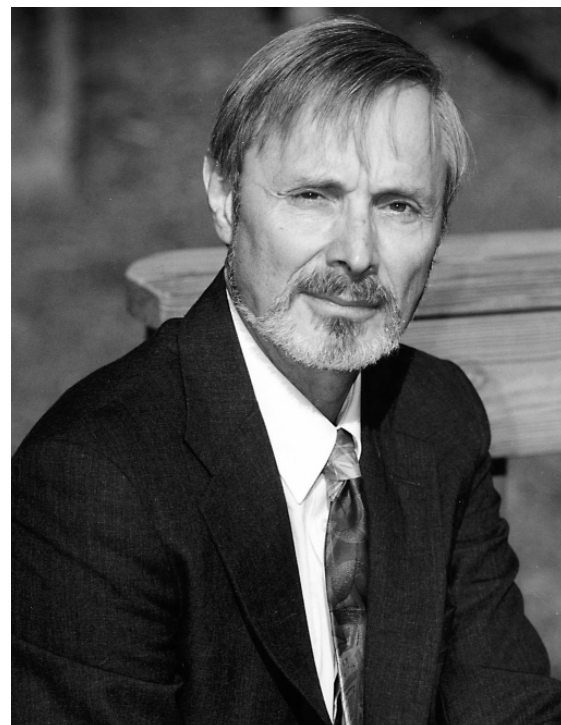
Christoph W. Leemann, is Jefferson Lab's new director. The announcement was made by Southeastern Universities Research Association President Jerry Draayer, at the outset of the Lab's annual State of the Lab Address and Service Awards held Nov. 16.

Leemann has served as the Lab's interim director since former director, Hermann Gruner, moved to head Argonne National Lab last fall.

Before that Leemann served the Lab as its first deputy director and the Lab's associate director for accelerators. He joined the Lab in 1985 and led the team responsible for the successful design and construction of the Lab's Continuous Electron Beam Accelerator Facility. Before coming to JLab, Leemann had been at Lawrence Berkeley National Lab where he had been involved in the design and construction of high-energy accelerators since 1970.

"As the new Jefferson Lab director Christoph Leemann will help maintain the tradition of excellence that characterizes the Department of Energy's science programs," Secretary of Energy Spencer Abraham said. "The lab's work in turn will help the nation remain a leader in science and technology."

"I am pleased to be asked to serve the nation as Jefferson Lab's director," Leemann said, "and am honored that SURA and the Department of Energy are confident of my ability to steward one of the jewels of American science. I will work to continue the Lab's excellent research output. I also look forward to strengthening the team of scientists at Jefferson Lab and to working closely with the user community to invigorate



Christoph W. Leemann
Jefferson Lab Director

the scientific research efforts of this Lab. I consider one of my primary tasks to guide an upgrade of the Jefferson Lab accelerator, an upgrade that will open new physics frontiers to the scientific community."

"Jefferson Lab is a national treasure," said Draayer, president of SURA — the management and operating contractor of the Lab for the Department of Energy. "We are pleased to have Christoph Leemann at the helm. He will guide the Lab in support of a flourishing scientific program. Under his leadership, the Lab is expected to deliver an enhanced accelerator with double the current energy that will enable researchers to probe even deeper into nature's secrets. Christoph has a proven record of success at Jefferson Lab including, most recently, its

Gamma Camera update

Second round of trials underway for imager developed at Lab

by James Schultz

Tacked up a wall in clear sight near Doug Kieper's computer workstation is a full-body diagnostic scan of a 62-year-old female. Numerous black dots and lumps mar the otherwise crisp detail of the scan. Nine nest within the woman's skull. Although the image was made when the patient was still relatively healthy, the ebony intrusions were harbingers of what was to come. Metastasizing cancer from a breast tumor ultimately would prove fatal.

"That's my motivation," says Kieper, nuclear medicine research supervisor at Hampton University/JLab's Center for Advanced Medical Instrumentation. "She was a lovely woman. She didn't have access then to the diagnostic procedures that could have saved her life."

The woman's tumors were too small at first, and her breast tissue too dense, for conventional mammography to reveal anything out of the ordinary. By the time the abnormal growths were detectable, the cancer was too well established to beat back. Such fates could be avoided if a new approach to breast imaging pans out. A device known as a "gamma camera," developed at Jefferson Lab and subsequently licensed to the Newport News-based Dilon, under the terms of a Cooperative Research and Development Agreement, or CRADA, is now in the first stages of a 48-month clinical trial that began in May.

The continuing evaluation of the now-renamed Dilon 6800 gamma camera is currently taking place at the George Washington University Hospital and should eventually involve some 200 patients, all volunteers. The outcomes of the Dilon scans will be cross-checked with scintimammography (using a standard nuclear medicine camera) to compare and contrast images, and to indicate areas of potential malignancy. In such cases, biopsies will be taken in order to evaluate cancer's presence or absence.



Doug Kieper uses a computer to examine images taken with a Dilon 6800. He's working in the CAMI lab, or Center for Advanced Medical Instrumentation, located on the third-floor of the Applied Research Center.

Potential For Widespread Application

The 6800 is smaller, mobile, and more sensitive than larger, traditional nuclear-medicine diagnostic equipment. Its articulating arm and movable sensing plate can be easily applied to the breast with little discomfort, yet appears to yield equal or superior results. In earlier studies, at Johns Hopkins University, the Dilon camera was able to pinpoint cancerous areas that otherwise wouldn't have been apparent.

"We believe this detector will find smaller cancers in earlier stages of growth than standard nuclear medicine devices," Kieper says. "Early diagnosis means a much better course of treatment — and a much better chance of remaining cancer-free."

The camera has its origins in the sensitive gear used in the Lab's experimental halls to detect subatomic particles. The device tracks an injectable radiopharmaceutical solution that binds with the miniature power plants inside cells known as mitochondria. As the solution circulates throughout the body, it tends to accumulate in malignant cells because malignancy requires additional mitochondria to accelerate and sustain growth. The concentrated radiopharmaceuticals emit gamma-ray photons, converted to light sensed by the camera, which are then converted into electronic signals that can be rendered into a visible image. Even tiny tumors thus reveal themselves as small, dark patches.

The market for the Dilon camera appears robust. Close to 10,000 Federal Drug Administration-authorized breast



The Dilon gamma camera uses technology developed by Jefferson Lab's detector group.

Gamma camera update...

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centers exist in the United States, with another 9,000 worldwide, according to figures compiled by Dilon. The number of mammograms made annually has increased to 44.5 million, up from 25 million five years ago. In addition, the suggested baseline age for breast-cancer evaluation has dropped, from 40 to 35 for those with no family history of breast cancer, and to 25 from 30 for those with such a history.

"We are making continual improvements in imaging with the device," Kieper contends. "It's a wonderful tool. I have no doubt it will find clinical application."

Before the end of this year, Dilon Technologies plans to ship its first three production models to university medical centers in the southeastern United States. Depending on progress in the clinical trials, others could follow. Depending on configuration, the 6800 series and successors should range in price from between \$130,000 to \$150,000.

JLab's new Director...

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partnering with other national laboratories on the construction of the DOE's Spallation Neutron Source in Oak Ridge, Tennessee. Christoph's expertise and experience position him uniquely to help forge an exciting and dynamic future for Jefferson Lab."

Leemann, an internationally recognized particle-accelerator physicist, is a native of Basel, Switzerland. He holds a Ph.D. in experimental nuclear physics from the University of Basel. He is a fellow of the American Physical Society and holds a Governor's Distinguished Professorship at the University of Virginia in Charlottesville.

GWU conducts clinical trials using the Dilon 6800

Dr. Rachel Brem, director of breast imaging and intervention at George Washington University Hospital, is currently using the Dilon 6800 gamma camera developed at Jefferson Lab to conduct clinical trials on nearly 200 women.

Having evaluated Dilon's high-resolution gamma camera during earlier trial results at Johns Hopkins University, Dr. Brem came away impressed: "With the improved resolution and the ability to image in positions similar to mammography, as well as the ability to localize and biopsy areas of increased focal uptake, it will be hard to envision a comprehensive breast care center without this technology."

Early tests demonstrated that the Dilon 6800 gamma camera could detect small, hard-to-find tumors in the breast. The camera may provide women with cancer-detecting scans that will enable doctors to detect breast cancer at its earliest, most treatable stages, perhaps saving lives in the process.

"The Dilon camera is capable of capturing the metabolic changes breast cancer produces," says Dr. Brem. These changes can be hard to detect at an early stage with traditional mammography, especially when breast tissue is dense. This is a significant benefit for younger women, whose breast tissue is denser, and individuals with increased risk of breast cancer.

"On a mammogram, dense breasts look like a white shadow, making cancer hard to see," Dr. Brem explains. "It's like looking for a particular cloud in a cloud-filled sky. But the Dilon technology clearly reveals the increased blood flow and metabolic activity that suggest cancer."

The test takes about an hour. A radioactive compound is injected into blood vessels in the arm or foot. Then, the camera takes an image of the breasts. The breasts don't have to be as compressed as they do for a mammogram because the Dilon device is more mobile and versatile and has a flexible arm that can be placed right next to the woman's chest. This minimizes the distance between the breast and camera, providing for a better picture.

Dr. Brem is recruiting nearly 200 women for two separate clinical trials. One study is evaluating 100 high-risk females (because of their own medical history or because a close female relative had the disease); and a second study that includes 100 patients whose mammograms or clinical findings (hard-to-read mammograms or questionable findings on a physical exam) warrant further evaluation.

The medical trials began in January 2001 and are expected to run for three years. To volunteer in the trial, contact Dr. Rachel Brem at 202-994-8370 or radrfb@gwumc.edu.

Science Bowl

High school teams preparing for tournament at JLab

Teams of students from dozens of high schools across the Commonwealth are hitting the books, honing their memorization skills, testing their reaction times and feeling the adrenalin surge, as they “Dive into Science” for the upcoming Virginia Regional Science Bowl.

And after a seven-year-hiatus, the event returns to Jefferson Lab in February 2002.

“We’re very excited to be bringing the Science Bowl back to Jefferson Lab,” exclaims Jan Tyler, Science Education program manager. “The Lab last hosted this annual academic competition in February 1995.”

For one day in February — Saturday the 9th — portions of the Lab will be taken over by nearly 120 high school students, their coaches and the scores of volunteers needed to conduct the tournament. “It will be great,” Tyler says, recalling the Science Bowl events held at

the Lab in ‘93, ‘94 and ‘95. “It will be fast-paced, exciting, intense, and fun!”

Twenty-seven teams have already pre-registered for the day-long event. The morning competition will consist of a round-robin tournament, followed by double-elimination rounds in the afternoon. “By 4 or 4:30 p.m. we’ll be down to one team,” Tyler notes. “The first-place team wins a trip to the Science Bowl Nationals held in Washington, D.C. in May. The top three teams will also win cash prizes for their respective schools.”

“The Science Bowl is a great way to promote education, academic excellence and an interest in the math and science,” Tyler points out. “Competing with their peers is a great confidence builder and a fantastic way to motivate young minds.”

“This is a fantastic opportunity for the Lab to show its support for science education in Virginia,” Tyler continues. “Hosting the Science Bowl gives us the

chance to encourage our youth to pursue higher education, and careers in science and math. Some of the young people attending this event could become future JLab scientists, engineers, technicians, or administrative or support staff.”

The Science Bowl is an academic competition among teams of high school students who answer questions on a variety of scientific topics. Each team is made up of five students, and a teacher who serves as an advisor and coach. Science Bowl competitions have been endorsed by the Department of Energy since 1991.

Contestants will answer multiple choice and short answer questions in the categories of chemistry, biology, physics, mathematics, astronomy, and the general, earth and computer sciences. For more information about this nation-wide competition, visit www.scied.science.doe.gov/ and select the link titled: DOE National Science Bowl (for high school students).

Hall C results

Experiment provides evidence for onset of quark effects

Evidence for the onset of quark effects in a nuclear reaction has been observed for the first time. When a particle strikes a nucleus at low energies, one can effectively describe the resulting behavior of the nucleus in terms of its constituent nucleons (neutrons and protons) and the mesons that hold them together. At low energies, one does not have to worry about the fact that each nucleon is itself made of three quarks held together by gluons.

When a particle strikes a nucleus at high energies, however, it penetrates the nucleus so deeply that this “effective theory” breaks down, and one must describe the nuclear action in terms of only quarks and gluons. There is a middle ground, alas, where neither descriptive picture can do the job completely.

Just as urbanologists strive to locate where a city truly ends and its suburbs begin, physicists wish to find the bound-

ary at which nucleon-based descriptions give way to quark-based ones. Towards this end, researchers study the behavior of the deuteron, the simplest nucleus, made of a proton and a neutron bound together.

In experiments at Jefferson Lab, a multi-institutional collaboration fired a high-energy electron beam at a copper target, which decelerated the electrons, creating high-energy photons as a result. In a process known as “photodisintegration,” the photons impinged upon a deuterium target, and broke apart deuterons into their constituent protons and neutrons.

The researchers then studied the properties of protons emitted at various angles from the collision. When the emitted proton has at least 1 GeV/c of momentum perpendicular (transverse) to the incoming beam, the data were best described by quark-counting rules, which take into account the behavior of individual quarks.

The transverse momentum translates to an interaction with the nucleus at a distance scale of 0.1 fermi (10-16 m), about a tenth of the width of a proton. In this situation, an individual quark, rather than the entire nucleon, absorbs the momentum of the collision. This was surprising, since the 0.1-fermi distance scale is larger than many current theoretical expectations for the onset of quark-counting-rule behavior.

Editor’s note: Phil Schewe, James Riordon and Ben Stein wrote this article which is reprinted from the American Institute of Physics (AIP) Bulletin of Physics News, Number 554 #1, August 30, 2001. The experiment was conducted in Hall C, March – April 1999. (Results from the “Measurement of the High Energy Two-Body Deuteron Photodisintegration Differential Cross Section” were written by E.C. Schulte et al., and published in Physical Review Letters, Number 87, September 3, 2001.

Data are in

Hall B experiment will likely confirm exotic matter and 'strange' particles

by James Schultz

You know it's there, but it's not easily seen. You have to be careful in looking, because the very act of observation may, unless carefully planned, disturb the very thing you're seeking.

Nuclear physicists may sometimes feel like field biologists hunting skittish animals in heavy fog. Unlike their life-sciences colleagues, however, Jefferson Lab researchers have a decided advantage: the JLab electron beam, roughly analogous to a cloud-piercing spotlight with a bit of X-ray vision thrown in for good measure.

A month-long Hall B experiment that concluded in September made direct use of the Lab's high beam energy, beam quality and a sophisticated fixed detector array to study the existence of certain kinds of exotic matter that could shine light on the nature of the strong interactions. Another key research area involved the detection of "strangeonia," a combination of a "strange" quark — one of the six "flavors," or varieties, of basic particles thought to comprise all matter — and anti-quark particles. Together, the two studies will enable physicists to understand in far more detail the strong force, which binds nucleons, the protons and neutrons that make up atomic nuclei.

"It was a very successful run," says Carlos Salgado, associate professor of physics at Norfolk State University and a co-spokesperson for the experimental team. "We ended up taking enough data to allow us to obtain important results. When producing exotic mesons, we managed to 'touch' the gluon: to directly probe the strong interaction [between basic nuclear particles] that keeps matter together."

Gluons are strong-force-carrying particles that tie quarks to one another. Salgado points out that the strong force can only be felt inside the nucleons themselves, between the quarks. The strength of the strong interaction increases with distance; try to separate quarks from inside the nucleons and the gluons become more tube-like, resisting the separation. Apply enough energy, and instead of separating the quarks, the gluonic tube breaks. Each end will then



Carlos Salgado (left to right) and Dennis Weygand, experiment co-spokespersons, discuss data analysis with Mina Nozar, JLab postdoc; Ji Li, Rensselaer Polytechnic Institute grad student; and Lei Guo, Vanderbilt University grad student.

pick up a quark or antiquark, producing what researchers call mesons, and making it impossible to separate quarks from nucleons.

For the Hall B experimenters, the study of the meson family of particles is of particular value, since it provides a means of testing quantum chromodynamics, the theory that describes the strong-force interactions between quarks and gluons.

The rare exotic and strangeonia particles are produced when high-energy photon beam particles interact with the protons in the target material. Detection of these rare particles is difficult because of the particles' extremely short lifespans. Confirmation of observation must be inferred by close examination of the debris produced during their subsequent decays.

In many cases, the same observed debris can be masked by other reactions between target and beam. Experimenters therefore measure the rate of debris production, or sudden increases in the debris-particle rates of production. From such resonance peaks, and their angular distribution through the detector, researchers can reasonably posit the

existence of the rare particles they seek.

The keystone to this experiment was a combination of customized technology, including Hall B's CEBAF Large Acceptance Spectrometer, or CLAS; a specialized converter that produced a photon beam of known energy (a photon tagger spectrometer); and technological expertise. In the latter case, says co-spokesperson Dennis Weygand, Lab specialists repaired a defective power supply in just 20 hours, after it had malfunctioned just several days into the Hall B run. He also credits JLab staff with providing very stable, high-energy beam, up to 5.7 billion electron volts, or GeV, that enabled the experiment to run very efficiently. "Much of our success is on the backs of the Accelerator Division," Weygand says. "Despite the initial problems we encountered, and the September 11 shutdown, we ended up with about 90 percent of what we wanted. It was just unbelievable."

Experimenters are already planning a follow-on Hall B study. Preliminary results from the September experiment have already been announced, but a more detailed analysis and the published report will likely take up to two years.

Community Service

Staff, users take opportunity to give back

Give Smart annual appeal

Jefferson Lab's participation in this year's United Way fund drive hit an all-time high, according to Christine Hummel, JLab's United Way campaign chairperson.

"We just completed a very successful year," Hummel notes. "The Lab achieved a new milestone — a 30 percent employee participation rate, which was a significant increase over last year's 17.5 percent participation rate."

Last year's contributions by 115 Lab employees totaled \$32,783. This year's fund drive brought in \$47,770, donated by 181 employees. "We had significant increases in participation across the Lab," Hummel says. "This annual charitable fundraising campaign is a great way to give back to our communities, and the charities or activities we wish to support."

"I want to express my deep appreciation everyone who made this year's campaign such a success," she says. "Thank you to everyone who made a contribution, and a special thanks to our United Way campaign committee members: John Kelly, Ivy Thomas, Noel Vermeire, Lyn Wells, Mike Syptak, Janet Prater, Heather Ashley, Rachel Harris and Linda Ware."

The campaign ran from mid-October – Nov. 5.

Day of Caring

Nine JLab volunteers took part in the United Way's recent Day of Caring, according to Pat Morton, JLab employee relations manager and Day of Caring event coordinator. Samantha Albright, Administration Division; Betty Beeler, Director's Office; Tonya Evans, Accelerator Division; April Miller, Accel.; Phil Mutton, Accel.; Chris Slominski, Accel.; Jerry Stokes, Admin.; Ivy Thomas, Admin.; and Morton participated in the day-long event where employers allow a number of their employees to do a day's work in support of a local charity or non-profit service agency.

Thomas and Morton teamed up to work with each other on Sept. 14. They

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Volunteers share their Day of Caring

I volunteered with the Downtown Hampton Child Development Center for the United Way's Day of Caring. This center provides the only sliding scale tuition childcare program on the Peninsula. Throughout the day I assisted classroom teachers in their day-to-day activities with the four-year-old children. This was such an uplifting experience for me, despite the recent terrorist attacks of 9/11. I felt I was able to give back a little bit of my time to help these young children who are our future. I believe very strongly that preschool age children are at a very impressionable stage of their lives and need positive role models/influences during this time. The Downtown Hampton Child Development Center does just that, making a strong difference in these youngsters' lives.

---Samantha Albright

My assignment this year was at the Yorktown chapter of the Red Cross. The building, on route 17, needed maintenance and the property needed yard work. About 10 people from local businesses supported the Yorktown Red Cross that day. My job was exterior painting. I did scraping, sanding, caulking, and painting on the front of the building and on a couple of badly weathered spots elsewhere. The spirit among the workers was energetic and patriotic due to the nearness in time to the September 11th terrorist attacks. I believe the Day of Caring is a good way to reach out to our fellow citizens on the Peninsula, and shows that Jefferson Lab in particular is concerned about the people around us.

---Chris Slominski

The Day of Caring began with a United Way campaign kickoff at Hampton Coliseum. It was particularly moving this year as it was only three days after the tragedies of September 11th. As well as the speeches from several dignitaries, a military band played a number of patriotic songs before we all made our way to our various work locations. I worked with a group of volunteers from NASA on a Habitat for Humanity house in Hampton. Our project for the day was to complete the installation of some roof trusses and to build a deck at the rear of the house. At one point the homeowner-to-be was at the site and it was great to see how excited she was as her home was taking shape. There is little in this world that is as satisfying as helping someone in need and seeing their joy and appreciation for your effort.

---Phil Mutton

I worked at the Veterans Affairs Medical Center in Hampton on 9/14. I volunteered on the spinal cord injury ward. I helped feed patients, and I met a very interesting patient who is paraplegic. It was a very special day.

---Betty Beeler

My participation in the Day of Caring consisted of visiting the Spinal Cord Injury Unit at the Veterans Hospital. It was a much better experience than I anticipated. Most of the patients were happy to have a visitor and I had some enlightening, interesting, and some funny conversations. I am so very glad I participated, and would recommend the experience to everyone.

---Tonya Evans

Complete comments and photos are available on the web at www.jlab.org/news/news_letter/

Milestones for September 2001

Hello

Nicole Brown-Sinkler, Staff Secretary,
Accelerator Division

Latifa Elouadrhiri, Hall B Physicist,
Physics Division

Carlos Hernandez, Staff Scientist,
Accelerator Division

Douglas Higinbotham, Experimental
Hall Physicist, Physics Division

Audrey M. Nichols, Staff Secretary,
Accelerator Division

Anndrea D. Plamp, Mechanical
Draftsperson, Accelerator Division

Phillip Schaper, Chief Financial
Officer, SURA

Nikolai Sinkine, Staff Engineer,
Physics Division

Goodbye

Daniel C. Brock, Hall C Mech.
Technician, Physics Division

John G. Mullin, Senior Vice President
- Operations, SURA

for October 2001

Hello

Deirdre M. Black, Post Doctoral
Associate, Physics Division

Igor V. Musatov, Post Doctoral
Associate, Physics Division

Yury Simonov, Visiting Staff Scientist,
Physics Division

Shukui Zhang, FEL Optics Physicist,
Accelerator Division

Goodbye

Karen Congiu, Procurement
Administrator, Administration Division

Congratulations

Danny Lloyd, JLab's purchasing and
small business manager, was selected
as the Corporate Minority Advocate of
the Year by the Tidewater Regional
Minority Purchasing Council. Lloyd
received the award at an awards lun-
cheon on Nov. 20.

Alicia Hofler, Accelerator Division
computer scientist, on receiving her
Master's Degree in Engineering (major
in electrical engineering) from Old
Dominion University. She joins 15

other JLab members who have earned
their degrees in the past few years
through the Lab's tuition assistance
program. She enrolled in TAP in
January 2000 and received her diplo-
ma in November. Twenty-nine other
individuals are currently participating
in the program. For more information
about tuition assistance, contact
the Training and Performance
Office or visit the Web at
www.jlab.org/div_dept/train/.

In Memoriam

Virginia "Anne" Stewart, retired JLab
employee, died of cancer on Oct. 27 at
her home in Newport News. She
worked for the Commonwealth of
Virginia for 22 years and retired from
the Lab in July 1998. She was an
administrative assistant in the
Administration Division. A funeral
mass was celebrated Oct. 30. She is
survived by her husband of 51 years,
Garland D. Stewart, Jr., six of their
seven children, 11 grandchildren, one
great-grandchild.

*"Milestones" highlights the achievements of
JLab staff and users, full-time and term new
hires, separations and retirements. To submit
staff or users' promotions, special honors and
awards send information to magaldi@jlab.org
or call ext. 5102.*

Update



Thanks for the Electrons

Charlie Sinclair, who is retiring, was re-
cognized by Lab staff and physicists from
across the country during the Sinclair
Symposium on Photoelectron Injectors
and Applications held Oct. 26. As the
Injector Group leader, he and his team
developed and brought on-line a redun-
dant polarized electron injector that
reduced beam downtime and increased
polarization levels to some of the best in
the world. Without his work on polarized
electron sources, the field of nuclear
physics would not be where it is today. He
also served as the acting director of the
Lab's recently formed Superconducting
Radiofrequency Institute.

JAG holiday happenings

Lab celebrates holidays with adult, children's parties

The Jefferson Lab Activities Group has plans underway for an adult holiday party on Saturday, Dec. 8 and a children's party to follow on Saturday, Dec. 15.

The adult party will be in the Westminster Ballroom at the Hospitality House, 415 Richmond Rd., Williamsburg. The bar opens at 6:30 p.m., light hors d'oeuvres and dessert follows from 7-9. Dancing to a DJ spinning tunes will last until 1 a.m.

Tickets for the event are being sold now through 4 p.m. Dec. 7 at the CEBAF Center and VARC reception desks, and by Tara Nelson in the MCC. The \$10-per-person tickets are for Lab employees, state employees, users, students and contractors. Each person is limited to two tickets. Check out the JAG Web page for more information.

The JLab children's party will be held on the 15th from 10 a.m.- noon in the VARC lobby. Ident-A-Kid will be set up and provide parents with current identification cards of their children.

The JAG asks all parents bringing children to the party to bring a snack or finger-food to share. Plates and drinks will be provided.

The Lab is also participating in the annual holiday toy drive sponsored by the U.S. Marines. Decorated Toys For Tots donation boxes are in the lobbies

or inside the main entrances of CEBAF Center, VARC, ARC, Trailer City, Test Lab, and the MCC. New, unwrapped toys for children ages 1-12, may be placed in the boxes up through Dec. 15. The toys will be presented to a Marine Corps Toys For Tots representative at the end of the children's holiday party.

Community service...

Continued from page 6

were assigned to the Peninsula Agency on Aging in Newport News where they helped serve lunch and mingled with lunch guests. They also delivered Meals-on-Wheels to homebound elderly.

Red Cross disaster relief donations

After the Sept. 11 terrorist attacks upon the nation, JLab employees donated \$525 to the American Red Cross Disaster Relief Fund. Jacqueline Bacon, Director's Office was the point of contact for the donations, which were sent to the Red Cross in mid-October.

Blood drive

The Red Cross collected 71 units during the Lab's Oct. 10 blood drive, according to Vicki Barnett, Medical Services secretary. "They topped their goal of 70 units, and were delighted with the turnout. This is a critical time for blood donations as they always slow down around the holidays," Barnett says. "Thank you donors, volunteers and recruiters. The Lab's next blood drive will be Thursday, Jan. 24, 2002. Please mark your calendars and plan to help us out."



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