

Standing Ovation for Ray Davis, BNL's Newest Nobel Prize Winner



Retired BNL Chemist Raymond Davis (front, third from left), a winner of the 2002 Nobel Prize in physics, receives a standing ovation at a celebration in a crowded Berkner Hall.



U.S. Representative Felix Grucci and Davis



BNL Interim Director Peter Paul, Grucci, and BNL's Ralph James.



Peter Rosen, Associate Director, DOE Office of High Energy & Nuclear Physics



Dennis Kovar, Director of DOE's Nuclear Physics Division, and Davis.



BNL's Nicholas Samios, Davis, and Maurice Goldhaber.

On Monday, October 14, several hundred colleagues and well-wishers gathered to welcome retired BNL chemist Raymond Davis Jr. and his wife Anna to celebrate Davis's 2002 Nobel Prize in physics and also his 88th birthday, which coincidentally was that very day.

Davis, who shared the prize with Masatoshi Koshihara, Japan, and Riccardo Giacconi, U.S., received the Nobel for detecting solar neutrinos, ghost-like particles produced in the nuclear reactions that power the sun (see Bulletin of October 11, 2002).

The celebration began with remarks from selected speakers and was followed by a reception for all attendees. Peter Paul, BNL Interim Director, was first to welcome Davis.

"Ray Davis's work represents the best that physics, in particular, and science, in general, can

offer," Paul said. "Namely, the vision of one person, way ahead of the rest of the world, doing the impossible, and succeeding."

In replying, Davis recalled how he had first chosen to do neutrino research as a result of his reading in the library on the advice of Richard Dodson, BNL's founding Chemistry Department Chair. "BNL's been very supportive," Davis concluded, "and that's all you need."

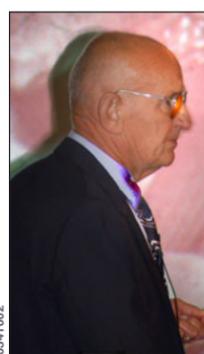
Among many good wishes sent to Davis were congratulations from Secretary of Energy Spencer Abraham and DOE's Office of Science Director Raymond Orbach. Their messages were delivered by Peter Rosen, Associate Director, DOE Office of High Energy & Nuclear Physics, who also said, "as a neutrino lover of long standing, it is a personal pleasure to be here." Davis's work had been funded by successive U.S. agencies, the most recent being DOE.

Warm congratulations were also given by U.S. Representative Felix Grucci, who attended the celebration.

Retiree Gerhart Friedlander, Chemistry Chair from 1968 to 1977, outlined Davis's career, describing some of his earlier experiments and recalling Davis's co-researchers. Veljko Radeka, who heads the Instrumentation Division, then described the pioneering detectors built by BNL instrumentation scientists for Davis's experiments.

The talks were concluded by Nicholas Samios, former BNL Director, who spoke about the important physics implication of Davis's discovery and looked forward to the neutrino discoveries waiting to be made in future experiments, some of them possibly at BNL.

— Liz Seubert



Davis and his wife Anna (above); BNL's Gerhart Friedlander (above left); and BNL's Veljko Radeka (below, left).

Peter Daum Receives Environmental Leadership Award From Southampton College

Peter Daum, Environmental Services Department, was one of four recipients of Southampton College's first annual environmental leadership awards. The four awardees were honored at a dinner on October 24 at Atlantis Marine World in Riverhead.

The awardees were recognized in various categories for their contributions and individual achievements in regionally important environmental programs. Daum was recognized for his research; Marty Shea, Town of Southampton, was honored for environmental leadership in government; Anita Wright, Group for the South Fork, was honored for efforts in education; and Lisanne Altmann, Long Island Power Authority, was given the award for environmental leadership in industry. Each of the awardees received a plaque and a specially designed glass paperweight from Southampton College.

"I am pleased to receive this honor," Daum said. "Almost all of my research at the Lab has been done in the context of large, multi-agency programs. BNL encourages interdisciplinary collaborations, so that we can take advantage of expertise in many fields to solve environmental problems."

Daum's research, since he joined BNL in 1980, has focused on the effects of energy-related pollutants on the Earth's atmosphere, particularly photochemical air pollution, known as smog, as well as acid rain.

Daum was the principal scientist in the U.S. Department of Energy-funded expedition to the Middle East in the summer of 1991 to study the environmental effects of the oil-fires set by the retreating Iraqi Army at the end of the Gulf War. He has led studies of smog in Nashville in 1995, New York City in 1996, Phoenix in 1998, Texas in 2000, and the Northeast U.S. in 2002. Results from these studies, particularly the Texas study, have had a direct impact on the strategies that are being proposed and implemented to control the nation's air-quality problems.

After earning a B.S. in chemistry from the Drexel Institute of Technology in 1965 and a Ph.D. in chemistry from Michigan State University in 1969, Daum joined the faculty of Northern Illinois University, where he worked from 1969 to 1980. He came to BNL in 1980 as a chemist in the Atmospheric Sciences Division. In 2000, he became head of that division. — Diane Greenberg



Peter Daum

More Clues About How Colds Spread

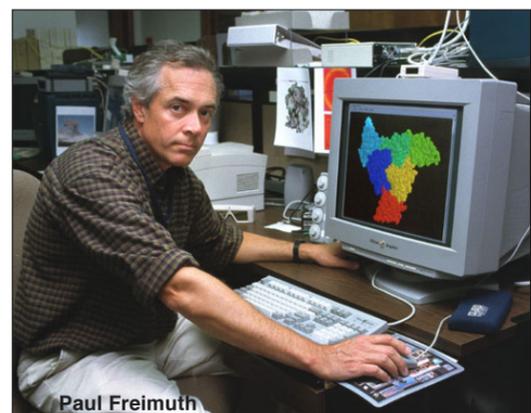
Scientists have some understanding of how viruses enter cells and reproduce once inside. However, much less is known about how the newly generated viruses exit from the tissue and return to the outside world to infect new hosts. Now a team of scientists from the University of Iowa, the Howard Hughes Medical Institute, and BNL have uncovered a strategy used by one particular type of cold virus to escape from its host's cells back into the environment. The findings appear in the Sept. 20 issue of the journal *Cell*.

"This study provides new insight into how virus particles initially breach epithelial cells, the body's first layer of defense against

pathogens in the environment, and how they subsequently spread to new sites within the body or are transmitted to other individuals," said Paul Freimuth of the Biology Department, a co-author on the paper.

Adenovirus, which causes colds and pneumonia, infects the airway epithelial cells that line the respiratory tract. The virus reproduces, and then escapes to find a new host. In general, epithelial cells line body

(continued on page 3)



Paul Freimuth

Joseph Rubino CHS-154-01

Calendar of Laboratory Events

- The BERA Sales Office is located in Berkner Hall and is open weekdays from 9 a.m. to 3 p.m. For more information on BERA events, contact Andrea Dehler, Ext. 3347; or Chris Carter, Ext. 2873.
- Additional information for Hospitality Committee events can be found at the Lollipop House and the laundry in the apartment area.
- The Recreation Building (Rec. Bldg.) is located in the apartment area.
- Contact names are provided for most events for more information.
- Calendar events flagged with an asterisk (*) have an accompanying story in this week's Bulletin.

— EACH WEEK —

Weekdays: Free English for Speakers of Other Languages Classes

Beginner, Intermediate, and Advanced classes. Various times. All are welcome. Learn English, make friends. See www.bnl.gov/esol/schedule.html for schedule. Jen Lynch, Ext. 4894.

Mondays: BNL Gospel Choir

5:15-7 p.m. Berkner Hall. All faiths are welcome. www.bnl.gov/bera/activities/choir/.

Mon., Tues., & Thurs.: Kickboxing

\$5 per class. Mon. & Thurs. noon-1 p.m. in the gym; Tues., 5:15-6:15 p.m. in the gym; Thurs., 5:15-6:15 p.m. in Brookhaven Ctr. Registration is required. Mary Wood, Ext. 5923, or wood2@bnl.gov.

Mon., Thurs., & Fri.: Tai Chi

Noon-12:45 p.m., Brookhaven Center North Room. Adam Rusek, Ext. 5830 or rusek@bnl.gov.

Mondays: BNL Dance Club Ballroom, Latin & Swing Practice

5:30-7 p.m. North Ballroom, Brookhaven Center, except Lab holidays. Jean Logan, jlogan@bnl.gov or Ext. 4391.

Tuesdays: Welcome Coffee

10-11:30 a.m. Rec. Bldg. Hospitality event. Come and meet friends. The first Tuesday of every month is special for Lab newcomers and leaving guests. Hospitality Chair Monique de la Beij, 399-7656.

Tuesdays: BNL Music Club

Noon, North Room, Brookhaven Center. Come hear live music. Joe Vignola, Ext. 3846.

Tuesdays: Aqua Aerobics

5:15-6:15 p.m. \$2 pool fee per class or use pool pass. Mary Wood, Ext. 5923.

Tuesdays: BNL Dance Club Individual & Couples Instruction

5-11 p.m. North Ballroom, Brookhaven Center. Ron Ondrovic, ondrovic@bnl.gov or Ext. 4553.

Tuesdays: Toastmasters

1st and 3rd Tuesday of each month, 5:30 p.m., Bldg. 463, room 160. Guests, visitors always welcome. www.bnl.gov/bera/activities/toastmasters/default.htm.

Tuesdays & Thursdays: Aerobics

5:15-6:30 p.m., \$4 per class. Rec. Bldg. Pat Flood, Ext. 7886.

Wednesdays: On-Site Play Group

10 a.m.-noon. Rec. Bldg. A infant/toddler drop-in event. Parents meet while children play. Svetlana Agafonova, 205-5065.

Wednesdays: Farmer's Market

11:30 a.m.-1:30 p.m., Berkner Hall parking lot

Wednesdays: Hispanic Heritage Club

11:30 a.m., Berkner Hall, Room D. All are welcome. Carmen Narvaez, Ext. 3254, or www.bnl.gov/bera/activities/hispanic.

Wednesdays: Weight Watchers

Noon-1 p.m., Brookhaven Center South Room. Mary Wood, Ext. 5923, wood2@bnl.gov.

Wednesdays: Yoga Practice

Noon-1 p.m., Brookhaven Ctr. Free. Ila Campbell, Ext. 2206.

Wednesdays: Exercise 101

5:15-6 p.m., Rec. Bldg. \$4 per class or \$35 for 10 classes. Stretching, low-impact aerobics, and other exercises. Pat Flood, Ext. 7886.

Wednesdays: Dance Club Group Lessons

5-9 p.m. North Ballroom, Brookhaven Center. Marsha Belford, belford@bnl.gov or Ext. 5053.

Thursdays: Science Discussion Group

12:30-1:30 p.m., Berkner Hall, Room A or D. Patrice Pages, Ext. 3270, pages@bnl.gov.

Fridays: BNL Social & Cultural Club

8-11:30 p.m., Brookhaven Ctr., social. Rudy Alforque, Ext. 4733, rudy@bnl.gov.

Saturdays: BNL Dance Club Monthly Ballroom Dance Social

8-11:30 p.m. Ballroom, Latin & swing dancing, North Ballroom, Brookhaven Center. 10/5, 11/9, Tuesday 12/31, 1/25, 2/15, 3/15, 4/12, 5/17. Marsha Belford, belford@bnl.gov or Ext. 5053.

— NEXT WEEK —

Monday, 10/28

IBEW Meeting

6 p.m., Knights of Columbus Hall, Railroad Ave., Patchogue. A meeting for shift workers will be held at 3 p.m. in the union office. The agenda includes regular business, committee reports, and the president's report.

Tuesday, 10/29

BWIS Reception

5:15-7 p.m., Large Seminar Room Lounge, Bldg. 510. All are invited to attend the Brookhaven Women in Science (BWIS) Wine & Cheese party. This annual event is held to thank people who have helped with and supported BWIS programs, to welcome new members, and to introduce next year's executive board.

2001 Environmental Report Released

Earlier this month, BNL issued its 2001 Site Environmental Report. Report highlights include the Lab's registration to a globally recognized environmental management standard, continued expansion of pollution prevention initiatives, and reduced environmental effluents and emissions. The report can be found on the Internet at www.bnl.gov/bnlweb/2001_SER.html. A summary booklet, which provides highlights from the report, is also available and includes a CD-ROM of the entire report. E-mail ratel@bnl.gov if you would like to receive a booklet.

The Site Environmental Report is prepared annually to summarize the status of the Laboratory's environmental programs and performance, including steady progress toward cleaning up the site and fully integrating environmental stewardship into all facets of BNL's mission.

BNL maintains a comprehensive environmental monitoring program to ensure protection of human health and the environment. This program monitors potential pathways of exposure, measures potential environmental impacts from Laboratory operations, and provides data to evaluate compliance with applicable regulatory and permit limits. Environmental program highlights from 2001 include the following:

- In July 2001 BNL became registered to the globally recognized ISO 14001 environmental management system standard,

becoming the first Long Island-based operation and the first DOE Office of Science facility to achieve this registration. ISO 14001 requires an organization to identify potential environmental impacts and establish controls needed to minimize impacts, to monitor and communicate environmental performance, and to establish a formal process for continually improving the system.

- BNL continued implementing pollution-prevention programs, recycling programs, and conservation initiatives. In 2001 alone, these efforts saved nearly \$1.39 million and supported the recycling or reuse of more than 1.9 million pounds of industrial materials. Recognizing BNL's strong commitment to reducing waste and protecting the environment, DOE also awarded the Laboratory two prestigious national pollution-prevention awards in 2001.

- In 2001, the dose to a hypothetical member of the public exposed to the maximum level of radiation due to BNL air emissions was 0.14 millirem (mrem), or less than 0.05 percent of the average annual natural background level of radiation (approximately 300 mrems on Long Island) and well below the 10-mrem limit set by the U.S. Environmental Protection Agency (EPA) under the Clean Air Act. This dose is calculated for a hypothetical individual residing at the BNL boundary 24 hours a day for the entire year. The Laboratory's radiological air emissions are regulated by EPA.

- Monitoring showed that deer and fish on and near the site still contain low levels of BNL-related radionuclides. The calculated maximum hypothetical radiation doses for a person eating locally caught deer and fish were estimated at 2.3 mrems and 0.1 mrem, respectively. The annual dose from deer meat is based on a generous consumption estimate of 64 pounds per person, and the dose due to fish is based on a consumption estimate of 15 pounds per person. Hunting is not allowed on the site, and a 1999 report from the N.Y. State Department of Health (NYSDOH) concluded that no restrictions on hunting or consumption of deer taken near the Laboratory were needed. NYSDOH has also evaluated data on Peconic River fish and concluded that the existing general fish advisory for all New York State ponds and rivers, including the Peconic, is sufficient. This general advisory is to protect residents from eating large amounts of fish that have not been tested or may contain unidentified contaminants, and recommends that no more than one meal (1/2 pound) per week of fish should be consumed from any freshwater location in the state.

- In 2001, BNL's sewage treatment plant, a discharge point regulated by the New York State Department of Environmental Conservation (NYSDEC), was compliant for liquid discharges 99 percent of the time. The exceptions involved metals, primarily zinc, detected several

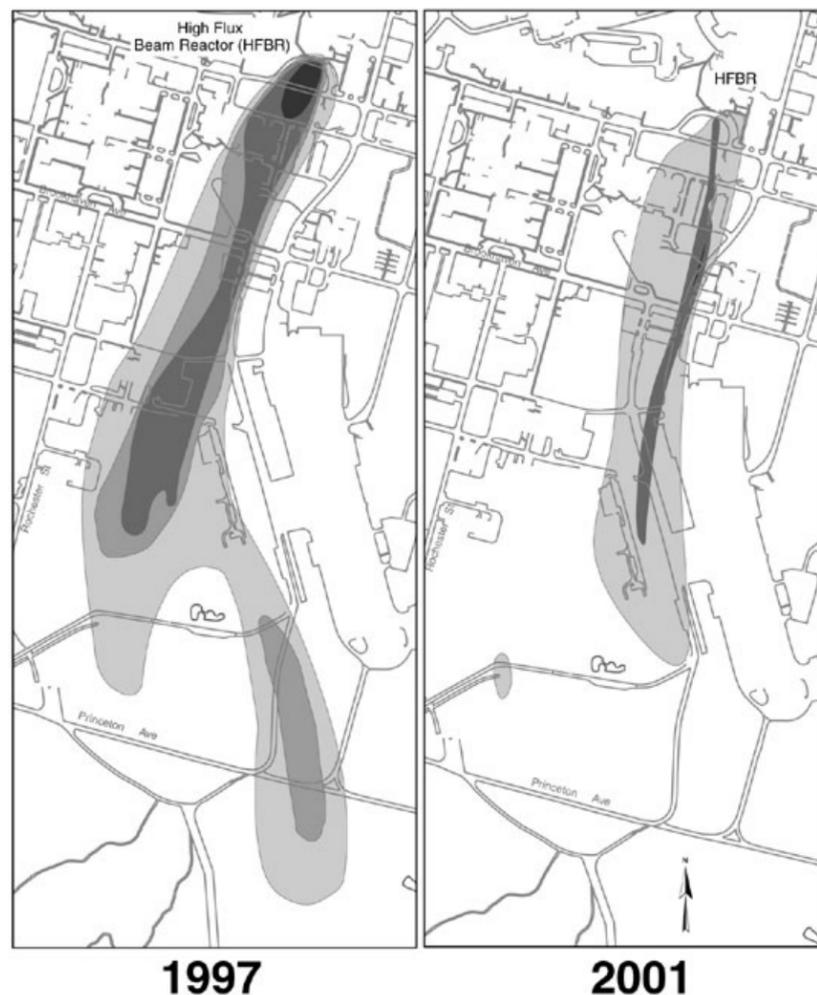
times at levels slightly above permit limits. The cause was traced to a project to replace outdated sewer lines; sludge that had trapped zinc over the years was dislodged when the old sewer lines were removed. In addition, new liners installed on several sewers had been manufactured using low levels of zinc, which added to the overall levels seen at the treatment plant.

- The total amount of tritium released through the sewage treatment plant was the lowest since routine monitoring began in 1966. During 2001, the average tritium concentration was 136 picocuries per liter, or less than 1 percent of the EPA drinking water standard of 20,000 picocuries per liter (a picocurie is a measurement of radioactivity equivalent to one-trillionth of a curie). For surface-water samples, all water-quality measurements were consistent with off-site control locations (areas not influenced by BNL operations).

- Areas of the BNL site where past activities have caused groundwater, soil, and sediment contamination continued to undergo monitoring and cleanup in 2001. Program highlights included major progress in dismantling BNL's graphite reactor, and installation of a new, on-site groundwater cleanup system. In addition, the Lab's six existing on- and off-site groundwater treatment systems cleaned more than 1 billion gallons of water and removed more than 600 pounds of chemical contaminants from the aquifer. Environmental restoration at BNL is conducted under the oversight of NYSDEC, EPA, and DOE, in cooperation with the Suffolk County Department of Health Services (SCDHS).

- Groundwater on site near the High Flux Beam Reactor (HFBR) that contains tritium at levels above drinking water standards continued to improve due to remedial pumping, the natural breakdown of radioactive material, and other processes. The total area where tritium levels exceed drinking water standards has been cut to less than half of the 1997 extent, and the plume (area of contaminated groundwater) has stopped moving toward the Lab's southern boundary.

BNL has published site environmental reports each year from 1962 to 1966 and from 1971 to 2001. Summary reports for the years 1947 to 1961 and 1967 to 1970 are also available. Data summarized in the 2001 report were obtained through testing performed by state-certified BNL or independent laboratories, SCDHS, NYSDOH, and NYSDEC. — Peter A. Genzer



A comparison of tritium levels in on-site groundwater south of the now-closed High-Flux Beam Reactor from 1997 to 2001 shows a substantial improvement resulting from remedial pumping, the natural breakdown of radioactive material, and other processes.

Arrivals & Departures

Arrivals

Sam Carr Physics□

Departures

Patricia Cahill S&S
 William Graves NSLS
 Jae-Yong Kim Chemistry
 Jutta Paparelli Biology
 Robert Weggel Physics

Inside Info: Yongjae Lee Wins Sidhu Award

Yongjae Lee, a postdoctoral fellow in the Physics Department, has won the 2002 Sidhu Award of the Pittsburgh Diffraction Society, given for an outstanding contribution to crystallographic or diffraction research by a young investigator. He received the award and presented a lecture on his work — high-pressure diffraction studies of materials that expand under pressure — at the Pittsburgh Diffraction Conference. This is Lee's second prestigious award for this work.

The Sidhu Award is given in memory of Surhain Sidhu, a professor of physics and director of the x-ray laboratory at the University of Pittsburgh, and a founder of the Pittsburgh Diffraction Conference, in 1942.

More Clues About How Colds Spread

(cont'd.)



surfaces and cavities. They form a physical barrier between the internal and external world.

A family of proteins called cell adhesion molecules hold the epithelial cells together, acting like a zipper. When the space between epithelial cells is "zipped," microorganisms cannot enter or exit from the host. One key component of this system, analogous to the teeth of a zipper, is a cell adhesion molecule known as CAR.

The study, conducted at the University of Iowa with reagents supplied by Freimuth shows that infection of cells with adenovirus caused the epithelia to become leaky, or "unzipped." Closer inspection showed that viruses moved through gaps formed between cells to gain access to the environment. The investigators also described the specific molecular event that produces the gaps between the epithelial cells.

The newly made adenovirus contains a protein on its surface, called fiber. When fiber binds to CAR it disrupts cell adhesion by CAR. That is, it "unzips" the epithelia.

"We found that fiber protein alone, even without the rest of the virus, caused a breakdown of cell-cell adhesion," said Robert Walters, a graduate student at The University of Iowa and lead author of the study. "Moreover, when we blocked fiber we prevented virus from escaping across airway epithelia."

The virus also appears to stack the deck in favor of its escape. In addition to reproducing itself, the virus makes excess fiber protein and defective viral particles that are not infectious but that do possess fiber. Thus, when an infected cell dies and spills its contents, the CAR molecules in the vicinity are swamped by various forms of the viral protein and relinquish their hold on neighboring cells. The "zipper" falls apart, leaving a gap between the cells for the virus to use as an escape route.

Walters noted that it was particularly interesting that adenovirus also exploits the molecular interaction between fiber and CAR to gain entry into host cells.

"Why viruses have selected cell adhesion molecules as re-

ceptors is a major unsolved question," Freimuth said, since they're not typically expressed on the exposed, vulnerable surface of cells. It could be that their numbers increase when cells are rapidly dividing — when the epithelium is recovering from damage. "Preferential binding of virus particles to actively dividing cells might accelerate infection, and thus would be advantageous for the virus," Freimuth said.

Previous studies have revealed that several other viruses also commandeer cell adhesion molecules for entry into host cells, and the researchers speculate that the type of escape route used by adenovirus for exiting a host or crossing tissue barriers may be widely used by other viruses and also by bacteria.

How might this new finding be put to use? "In most viral infections, people shed the virus before they are noticeably sick," said Walters. "So being able to understand how that shedding occurs might allow us to prevent the spread of infection."

Adapted from a news release issued by the University of Iowa.

Is your computer having the **LAST LAUGH?**



If so, then contact the **ITD HELP DESK** for fast, efficient service — hardware, software, networking — **ITDhelp@bnl.gov** 8 a.m.-5:30 p.m., Mon.-Fri. OR Ext. 5522 24 hrs./day, 7 days/wk.

Inside Info

Clinical Research Center Reaccredited

BNL's Clinical Research Center (CRC) has been reaccredited by the Joint Commission on Accreditation of Healthcare Organizations. The Joint Commission is dedicated to continuously improving the safety and quality of the nation's health care through voluntary accreditation. More than 1,100 free-standing ambulatory care organizations in the U.S. maintain Joint Commission accreditation.

This triennial Joint Commission survey focused on the entire operation of the CRC, where research is conducted on drug addiction, alcoholism, human immunodeficiency virus (HIV), obesity, breast cancer, attention deficit hyperactivity disorder (ADHD), Alzheimer's disease, and more. Functional areas inspected by the Joint Commission included: improving organization performance, leadership, management of human resources, management of the environment of care, patient rights and organization ethics, care/assessment of patients, continuum of care, management of information, and infection-control surveillance.

"Achieving accreditation demonstrates Brookhaven National Laboratory's commitment to provide high-quality and safe care to its research subjects," said Michael Kulczycki, executive director, Ambulatory Program, Joint Commission.

"The accreditation process has strengthened our ongoing efforts to improve the quality of our services," said CRC Manager Julia Yang. "Everyone at the CRC has played a vital role in working to meet the standards. This successful accreditation reflects the dedication of the entire CRC staff to providing continuous high-quality care."

Others at BNL who led the accreditation process included: Peter Bond, the Federal Wide Assurance Authorized Institutional Official; Nora Volkow, Associate Laboratory Director for Life Sciences; Helene Benveniste, Chair of Quality Assurance, Care, & Safety at the CRC; William Gunther, Special Assistant to the Associate Laboratory Director for Life Sciences; and principal investigators Joanna Fowler, Gene-Jack Wang, and Linda Chang.

For more information, contact: Julia Yang at Ext. 7883.

Daylight Saving Time again — clocks "fall" back this weekend.

Calendar

(continued)

Wednesday, 10/30

T-Mobile Demo

10 a.m.-2:30 p.m., Berkner Hall. A representative will present BNLers with special rates on wireless phone and data services including free nights and weekends on select plans. Richard Goll, 516-343-5900.

Thursday, 10/31

Children's Halloween Party

5 p.m., Rec. Bldg. The Hospitality Committee invites all BNLers to wear a costume to the party and to bring a cold dish to share. Hot cider will be served. At 7 p.m., everyone will go trick-or-treating on site. Parents are encouraged to wear costumes too. Svetlana Agafonova, 205-5065, or Monique de la Beij, 399-7656.

— WEEK OF 11/4 —

Monday, 11/4

NNDC Golden Jubilee

1-9:30 p.m., Berkner Hall. To mark the National Nuclear Data Center's 50 years of continuous service to the nuclear physics community and applied users, all former and present staff members and colleagues of the Data Center are invited to an afternoon of reminiscences, followed by a reception and dinner on Monday, November 4. Those interested in attending the 50th anniversary celebration should look at the registration form at www.nndc.bnl.gov.

Wednesday, 11/6

BJ's Wholesale Club Demo

11 a.m. to 1:30 p.m., Berkner Hall. A representative from BJ's Wholesale Club will present BNLers with discounted membership rates and free bakery samples.

BSA Noon Recital

Noon, Berkner Hall. Pianist Mayron Tsong, Chair of the Piano Department at the University of Lethbridge, Canada, will perform works by Mozart, Chopin, and Ginastera. Noon recitals are free and open to the public. Bring your lunch and come and go as you please.

Thursday, 11/7

Adelphi University Demo

11 a.m. to 2 p.m., Berkner Hall. An admissions representative will visit BNL to present information on Adelphi's graduate and undergraduate programs. For more information, see www.adelphi.edu.

BERA Bridge Club

7 p.m., Brookhaven Ctr., South Rm. Morris Strongson, Ext. 4192, mms@bnl.gov.

Friday, 11/8

Symposium to Honor Memory of Richard W. Dodson

2-5:30 p.m., Hamilton Seminar Room, Bldg. 555. Symposium to honor the memory of the Chemistry Department's founding chairman, Richard W. Dodson, who died on June 13.

5:45 p.m. - reception in Berkner Hall
6:30 p.m. - dinner in Berkner Hall for those who have previously registered.

For more information, contact Lois Caliguri, Ext. 4397.

Saturday, 11/9

BNL Dance Club Monthly Dance Social

8-11:30 p.m. Ballroom, Latin & swing dancing, North Ballroom, Brookhaven Center. Marsha Belford, belford@bnl.gov or Ext. 5053.

— WEEK OF 11/11 —

Wednesday, 11/13

Rifle & Pistol Club Meeting

Noon, Conference Room, Bldg. 535. Membership activities and the use and availability of on-site ranges will be discussed. Jim Duran, Ext. 5993, Rich Conte, Ext. 5741, or www.bnl.gov/bera/activities/rpc/

378th Brookhaven Lecture

4 p.m., Berkner Hall. George Greene presents, "Proton Radiography: To See or Not To See." More information to follow.

BNL Dance Club Ballroom Dance Lessons: start of 2nd 8-week series

Sign up ASAP. Marsha Belford, belford@bnl.gov or Ext. 5053.

— WEEK OF 11/18 —

Saturday, 11/23

Defensive Driving

9 a.m.-3:30 p.m., Berkner Hall, Room B. To register, send a check for \$26 per person, made out to Empire Safety Council, care of Scott Zambelli, P.O. Box 670, Mount Sinai, NY 11766. Include your telephone number. All checks must be received by 11/20. No refunds after 11/20.

2002 Volleyball Champs

Photos by Joseph Rubino



League 3: Networkers

Back (from left) Bob Retundi, Bob Eich, Beth Gilman, Mike Stangel. Front (from left) Laurie Pearl, Diana Teich, Sue Wells. Not pictured: Allan Corby, Maureen Fazzio.



Open B: Easy Spikers

(from left) Joe Greco, D.J. Greco, Dan Mullaly, Jay Adams, Gloria DeBoer & John DeBoer. Not pictured: Terry Sullivan, Walt Reams.



Open A: UCB Roof Company

Back (from left) Joe Greco, Art Sedlacek, Travis Shrey, Kevin Smith. Front (from left) Alain Domingo, D.J. Greco, Gregory Marr.



League 2: Nuts&Bolts

Back (from left) Cecilia Sanchez-Hanke, Ken Asselta, Susan Cataldo. Front (from left) Ken Sutter, Christie Nelson. Not pictured: Bob Brown, Bob Callister, Michelle Pizzulli.





BERA Holiday Party, 12/6

BERA will hold its Annual Holiday Party on Friday, December 6, at the East Wind Caterers in Wading River from 6 to 10 p.m. All the Lab community — employees, guests, facility users, retirees, and their families are invited to celebrate this holiday event together.

The cost is \$48 if tickets are purchased before November 15, and \$60 if purchased between November 18 and November 29. Ticket price includes full open bar, cocktail reception, hors d'oeuvres, salad, two pasta specialties, four hot entrees, cake, coffee, and DJ music. Purchase tickets by Friday, November 29, at the BERA Sales Office in Berkner Hall.



Classified Advertisements

Placement Notices

The Lab's placement policy is to select the best-qualified candidate for an available position. Candidates are considered in the following order: (1) present employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present employees within the Laboratory; and (3) outside applicants. In keeping with the Affirmative Action Plan, selections are made without regard to age, race, color, religion, national origin, sex, disability or veteran status. Each week, the Human Resources Division lists new placement notices, first, so employees may request consideration for themselves, and second, for open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all people. Except when operational needs require otherwise, positions will be open for one week after publication. For more information, contact the Employment Manager, Ext. 2882; call the JOBSITE, Ext. 7744 (344-7744), for a list of all job openings; use a TDD system to access job information by calling (631) 344-6018; or access current job openings on the World Wide Web at www.bnl.gov/HR/jobs/default.htm.

OPEN RECRUITMENT — Opportunities for Laboratory employees and outside candidates. MK3854. SCIENTIST — Requires a Ph.D., a distinguished publication record, a history of interacting with sponsoring organizations, and excellent inter-personal, oral and written communication skills. An established career with a strong background and experience in the application of synchrotron radiation for environmental research and the unique challenges associated with sample preparation, beam optics, etc. is required as is ability to prepare grant applications and obtain independent funding. Experience in managing an interdisciplinary scientific and technical research team engaged in both basic and applied research is highly desirable as well as experience in studying

the fate and behavior of actinides in the environment. Should have experience in experimental design, data analysis and interpretation using state-of-the-art synchrotron light source methods e.g., EXAFS, XANES, infrared spectroscopy, x-ray fluorescence microanalysis. Will conduct and coordinate environmental science research (i.e., biological/geochemical science focused on environmental contamination) at the National Synchrotron Light Source (NSLS). The candidate is expected to serve as a Principal Investigator for original research and provide the interface between researchers at BNL, the Stony Brook University Center for Environmental Molecular Science and other institutions interested in the application of synchrotron light source techniques for environmental research. Will coordinate research activities with investigators and NSLS administration, evaluate EnviroSuite researcher needs to ensure that optimal hardware and software capabilities are available, interface with collaborators at the Stony Brook University Center for Environmental Molecular Science, organize and supervise a technical support staff to assist researchers, and develop a strategy to broaden the user base and scope of the EnviroSuite Consortium. Under the direction of P. Kalb, Environmental Sciences Department.

TB2471. SR. TECHNICIAN — TW3 (Part-time/term appointment) — Requires an AAS degree in a technical field or equivalent capabilities. Specific skills include the ability to read and understand electronic diagrams, populate printed circuit boards with surface mount components, build electronic chassis (drilling, sawing, and punching metal), wire discrete components point-to-point, prepare coaxial and multi-conductor cable assemblies, and verify the correct operation of the constructed assemblies using oscilloscopes, DVMs, and signal generators, and to document all work. The candidate should also be willing and able to learn to layout printed circuit boards from schematics using computer aided design tools. Under general supervision and direction of an engineer, will perform a variety of non-routine technical functions involving the fabricating and testing of electronic equipment and assemblies. Physics Department.

Motor Vehicles & Supplies

- 01 TOYOTA ECHO - blue, 4-cyl., all power, 22K mi., CD player, tinted windows, \$8,900. Matt, 345-0528.
- 00 SUBARU FORESTER - all power, 72K mi., 4-wd, excel. cond., am/fm/cass./CD player, navigational device, new tires, \$14,500. Jean, Ext. 7064 or 286-9121.
- 99 SUZUKI GSXR 600 - white/blue, many extras, \$9,500. Chris, 331-2356.
- 98 JEEP WRANGLER SAHARA - green/tan, hard top, a/t, 30K mi., loaded, \$18,000. Jay, Ext. 4994.
- 96 CHEVY PICKUP S-10 - all power, 62K mi., bed mat, t-cover, tow hitch, tinted glass, 2 stage multi-leaf springs, excel. cond., \$6,100. Peter, Ext. 5282.
- 96 VOLKSWAGON GOLF - a/t, p/s, a/c, 4-2001, alarm, 91K mi., \$6,000. Rich, Ext. 7013.
- 95 FORD RANGER - needs transmission work, \$500. Angela, 475-2946.
- 95 GEO TRACKER - 5-spd., 4-wd, 72K mi., \$3,500. Frances, 874-4067.
- 93 FORD ESCORT SW - 5-spd., all power, cruise, 105K mi., economical, excel. cond., blue book val. \$2,155, b/o. Tom, 286-2505.
- 92 FORD CROWN VICTORIA LX - white leather int., V8, 77K mi., orig. own., ask. \$3,500. 924-7476.
- 92 MAZDA PROTEGE - 5-spd., a/c, p/s, p/b, 169K hwy. mi., excel. cond., very reliable, maint. record avail. Jae, 516-991-4520.
- 91 MAZDA MX-6 - 5-spd., 142K mi., good cond., \$1,500 neg. Gail, Ext. 2838 or 727-8308.
- 90 NISSAN SENTRA - a/c, 147K mi., 4-spd., am/fm/CD player, runs well, \$650. Yongbin, Ext. 2835.
- 89 BUICK SKYHAWK - gray/gray int., all power, 56K mi., 2-dr., 4-cyl., \$500. Debbie, Ext. 5340 or 286-0654.
- 88 CHEVY CORSICA - good cond., all power, \$500 obo. John, Ext. 4456.
- 88 JEEP CHEROKEE - a/p, 4-wd, 206K mi., g. cond., \$1,500. Dan, Ext. 4612 or 878-9037.
- 88 PONTIAC TRANS AM - 70K mi., many high performance extras, \$6,500. Roy, 727-6959.

87 MAZDA 626 - 5-spd., 148K mi., new clutch, brakes, radiator, heater, timing belt, well maint., runs well, one owner, \$1,200. Susan, 331-5642.

85 CHEVY S-10 4X4 - a/t, p/s, 85K mi., am/fm, good tires, brakes, exhaust, runs well, alloy wheels, bedliner, \$1,500. Tirre, Ext. 3288 or 281-0360.

Boats & Marine Supplies

- 25' BAYLINER CIERA - swim platform, anchor bow, bimini top Volvo Penta, new exhaust manifold, new double axle trailer. Bill, Ext. 2036.
- 22' WESTERLY SAILBOAT - twin keel, f/g, clean, newly painted, many extras, needs some work, \$2,000. 744-3569.
- 18' MANATEE CUDDY CABIN - '85 Johnson 150 h.p., rebuilt in '00, radio, depth finder, am/fm cass., life jackets & safety equip. included, w/trailer, \$3,200. Lori, Ext. 8370 or 727-3319.
- 18' POINTER - '81, '83 80 h.p. Mercury excel. running cond., w/trailer, \$5,600. Bernie, 422-9209.
- 18' CRESTLINER - 40 h.p. Mariner eng., good cond., two gas tanks, dual batteries, new seats, w/trailer, \$1,500. Greg, Ext. 3263 or 581-2264.
- 8' QUICKSILVER - '95, 4 hp Merc., wood, all redone, little use on all, \$800. Joe, Ext. 4030.
- TRAILER - Elkins, single axle for up to 21' boat, '98, has bunks, \$750. Lew Snead, 286-8166.

Furnishings & Appliances

- BED - frame, bottom pulls out, best offer, e-mail picture. Peter, Ext. 4982 or kohut@bnl.gov.
- COUCH - 2-pc. sectional, seats 6, excel. cond., \$200; glass & chrome coffee table & sofa table, \$100; Ikea queen bed w/headboard, like new, \$300. 744-8087.
- DINING ROOM SET - solid oak dining room set, hutch w/glass doors, 70" round table w/leaf, 4 side & 2 arm chairs, \$850, side board, best offer. Maryann, 878-4192.
- DISHWASHER - Kenmore limited edition, very good cond., needs bottom rack, \$50. 924-7476.

ELECTRIC DRYER - works well, \$150. Wei, Ext. 4213.

FURNITURE - living room set, sofa, loveseat, recliner, three tables, good cond., \$700, separate sofa bed, \$200. 475-8242.

FURNITURE - couch, chairs, brass/glass tables, drapes, bunkbed. Nancy, Ext. 4303 or 878-5449.

FURNITURE - dark oak d/rm hutch, table, chairs, \$225; octagon glass top oak coffee table, \$45; horizontal wall unit, \$45; com-mode & walker, \$20/ea obo. 345-5492.

Tools, House & Garden

ECHO - power blower, orig. \$160, ask. \$85, hand held type. Ext. 3783 or 929-8321.

FIREPLACE TOOLS - 5 pc. set., used, good cond. \$20; Five DuraFlame logs, \$6. Wayne, Ext. 3110 voice pager.

LUMBER - 2x6x14, \$5/ea.; 120 avail. and 2x10x18, \$10/ea., 40 avail., Douglas fir. Lori, Ext. 8370 or 727-3319.

SNOW BLOWER - \$50. Wei, Ext. 4213.

WINDOW - w/external storm/screen, make offer, you pick up. Martin, Ext. 3941 or 744-8632.

Sports, Hobbies & Pets

BEER TAP HANDLES - assorted top handles, new, \$20/ea. Chris, Ext. 2024 or 395-6112.

BICYCLES - two 16" boys bikes and one 20" girls bike, good cond., \$15/ea. obo. Steve, Ext. 2897.

CROSS COUNTRY SKI MACHINE - Tony Little Cross Country Ski Machine, orig. \$150, ask. \$75. Eleanor, Ext. 3834.

FISH TANK - used, 55 gal. tank & wood cabinet w/lights & filters, most recently used for saltwater aquarium, you pick up. Maria, Ext. 7525 or 744-0790.

FISH TANK - 30 gal., 3 filters, 2 air pumps, 150w heater, cover w/light, \$50. 467-8297.

NORDIC TRACK - excel. cond., \$125; Exercycle, \$20. Leonard, Ext. 4457.

Audio, Video & Computers

COMPUTER & DESK - 150 MHz., Pentium, Gateway, 14" monitor & keyboard, CD-ROM, 3.5" floppy, 1.5 GB HD, windows, \$150, computer desk, \$25. Ext. 5080 or 751-1884.

COMPUTER GAME - "Civilization II: Test of Time", unopened, \$8. Morris, Ext. 4192.

MODEM - U.S. Robotics, 56K external modem, \$25. Chris, Ext. 2492.

NINTENDO 64 GAME SYSTEM - 23 games, 2 controllers, 2 rumble packs, 1 regular and 1x4 memory card, \$300. Ext. 2276.

SCANNER - H.P. ScanJet 6300cse, 1200 d.p.i. resolution, SCSI or VSB connection, new in unopened box, \$125. Peter, Ext. 2913.

STEREO COMPONENTS - new Sony 5 DVD changer DVP-NC655P/B, \$190, JVC XL-F254BK 5 CD player, \$100; Onkyo receiver \$100; Pioneer DVD DV-525, \$100; EPI T120 speakers, \$80, Radio Shack sub woofer, \$50, \$550/all. Ext. 5335.

WIRELESS ACCESS POINT SMC - 11mb/s., almost new, \$50; 14" VGA monitor, good cond., \$20. 751-8240.

Miscellaneous

CELIAC SPRUE DISEASE - seeking others on site for support and lunch at Berkner & beyond. Michael, Ext. 8612.

COMPUTER SUPPLIES - lounge chair, printer stand, file cabinets, bookcase. Celeste, Ext. 4980.

DOLLHOUSE - Enso, Victorian, musical, mint cond., call for price. Eleanor, Ext. 3834.

FUR COAT - full length black natural mink coat w/indigo fox tuxedo, size 6-8, \$900. Must sell, moving to Florida. Linda, 286-0001.

HOT TUB COVER - 3 1/2 insulation, 7'2" octagon, tan, 3 mos. old, paid \$300, ask. \$100. Jane, 369-2719.

POOL SOLAR COVER - 30x15 used 1 season, blue, \$25

TELESCOPE - Meade, 6 in., \$300; AC Fedders, \$120, nursing pillow, \$30, comforters \$15, car seat base Graco, \$15; car booster seat, \$15; oak dresser, \$50. 821-4602.

TICKETS - 2 Mets balcony tickets for *Lucia di Lammermoor*, 11/21. Ext. 7761.

Free

FEMALE CAT - beautiful, long haired, quite small & declawed, very loving, free to a good home, current owner has allergies. Anna, 793-4551.

TV - Toshiba, 20", color w/remote, needs adjustment. Chris, Ext. 2492.

Wanted

LOG SPLITTER - gasoline driven. Andrew, Ext. 7014 or 281-8274.

INFORMATION - I'm looking for my mother, Mattie E. Jappe, age 85, and my brother, James W. Jappe, age 60, both missing from East Patchogue since 1997. For more information, see www.wjappe.com.

RESEARCH VOLUNTEERS - healthy non-smoking men and women, ages 18 and over, are needed for MRI study. Strictly confidential, fee provided. 344-2773.

SKIERS - to share timeshare in Ludlow, VT., nearest ski areas, Killington & Okemo, \$790. Alistair, Ext. 2948.

Yard & Garage Sale

EAST MORICHES - moving sale, furniture, tools, toys, books, household items, 10/26, 9 a.m. to 2 p.m., 5 Oaktree Drive, Montauk Hwy. to Locust to Woodbine to Oaktree, canceled if it rains. 878-5449.

National Nuclear Data Center Celebrates Golden Jubilee With Seminar, 11/4

An afternoon seminar on Monday, November 4, 2002, will be held to celebrate the National Nuclear Data Center (NNDC) Golden Jubilee. The NNDC traces its roots back to the Sigma Center, formed in the BNL Physics Department under the leadership of Donald J. Hughes. The seminar will consist of talks on the history of the center. Among the scheduled speakers are John Harvey and Robert Chrien, members of the original Center, and Vicki McLane, a member of the Center since 1962. Also scheduled to speak are Mulki Bhat, a former staff member, Peter Kahn of Stony Brook University, and Hans Lemmel, formerly of the International Atomic Energy Agency (IAEA) Nuclear Data Section.

Those interested in attending the 50th anniversary celebration should look at the schedule and registration form located at www.nndc.bnl.gov.

Community Involvement

HILLEL'S JEWISH LABORATORY SCHOOL - registration is still open for children of SBU & BNL faculty & staff. The school is held on Sunday mornings and offers Jewish educational enrichment for faculty & staff children as well as family-oriented programs. For more information, call 632-6565 or e-mail jtopek@notes.sunysb.edu.

Happenings

LI SCIENCENTER - presents the Fall Lecture Series, "Vikings, Dinosaurs, and Our Genes." Each lecture will begin at 7:30 p.m. and will be followed by discussion and refreshments. Seating is limited. Reserve tickets in advance by calling the SciCenter at 208-8000. \$4 suggested donation. Garman Harbottle, BNL Chemistry Department, will present the first talk in the series, "The Vinland Map: The 'Greatest Bargain' or The Most Ingenious Hoax in All The World" this evening. The second lecture, "Madagascar's Buried Treasure: New Discoveries of Dinosaurs and Other Fossils" will be given by David Krause, Professor of Anatomical Sciences at Stony Brook University, on Friday, November 1. The final talk, "Genes R Us - Or Are They?" will be presented by Jan Witkowski, Cold Spring Harbor Laboratory, on Monday, November 11. The SciCenter is located at 11 West Main Street in Riverhead.

In Appreciation

To all BNL: words can not express our overwhelming heartfelt appreciation of the thoughtfulness, generosity & support that you gave us during the difficult time following the loss of our son Thomas. Thanks.

— Bill & Carol Kollmer & family

Family Swim Night Begins 11/1

On Fridays, beginning on Friday, November 1, BNLers are invited to the Lab pool from 5 to 8 p.m. for "Family Swim Night." \$5 per family includes music, fun, and games. Entrance to the pool is behind the building off Bell Avenue. For more information, Contact Christine Carter, Ext. 5090.

Wanted: BNL Art and Crafts for Fall Show

BNL artists, sculptors, crafters: Your most beautiful, eye-catching work is needed for the BNL Art Society's upcoming Thanksgiving Art and Crafts Show, to be held at Berkner Hall from Monday to Wednesday, November 25-27, from 11:30 a.m. to 1 p.m. An evening reception with refreshments will also be held on Monday, November 25, from 5 to 7 p.m.

BNL employees, retirees, facility-users, guests, and their family members 15 years of age and older may all contribute. More than one piece may be entered by an exhibitor, to be shown as space permits. This is the second year that art and crafts will be displayed in the same show, so make it as great as last year — enter your finest skilled and creative works for the Lab community to enjoy.

Exhibits for the show must be brought to Room D, Berkner Hall, the afternoon of Friday, November 22. To be included in the catalog, complete two forms for each work entered and return them by Tuesday, November 12, to Robert Chrien, Bldg. 510A. Copies are acceptable.

Entry Form BNL Art & Crafts Show, November 25-27, 2002

Name: _____
 Home phone: _____
 Name of BNL contact: _____
 BNL extension: _____
 Type of art/craft: (*painting, sculpture, photo, pottery, quilting, etc.*) _____
 Title of work, if there is one: _____
 Description: (*medium/material, size*) _____

PLEASE PRINT CLEARLY AND RETURN TO ROBERT CHRIEN, BLDG. 510A, BY NOVEMBER 12TH