



June 23, 2006

In Memoriam: **Nobel Laureate Raymond Davis**

Raymond Davis Jr., No-bel Laureate and retired chemist at BNL, passed away at his home in Blue Point, New York, on May 31, 2006, at the age of 91. He died of complications from Alzheimer's disease.

Davis won the 2002 Nobel Prize in Physics for detecting solar neutrinos, ghostlike particles produced in the nuclear reactions that power the sun. He shared the prize with Masatoshi Koshiba of Japan, and Riccardo Giacconi of the U.S.

"Neutrinos are fascinating particles, so tiny and

fast that they can pass straight through everything, even the earth itself, without even slowing down," said Davis at the time of his Nobel award. "When I began my work, I was intrigued by the idea of learning something new. The interesting thing about doing new experiments is that you never know what the answer is going to be!"

Davis was the first scientist to detect solar neutrinos, the signature of nuclear fusion reactions occurring in the core of the sun. Devising a method to detect solar neutrinos based on the theory that the elusive particles produce radioactive argon when they interact with a chlorine nucleus, Davis constructed his first solar neutrino detector in 1961, 2,300 feet

below ground in a limestone mine in Ohio. Building on this experience, he mounted a full-scale experiment 4,800 feet underground, in the Homestake Gold Mine in South Dakota. In research that spanned from 1967-1985, Davis consistently found only one-third of the neutrinos that standard theories predicted. His results threw the field of astrophysics into an uproar, and, for nearly three decades, physicists tried to resolve the so-called "solar neutrino puzzle."

Experiments in the 1990s using different detectors around the world eventually confirmed the solar neutrino discrepancy. Davis's lower-than-expected neutrino detection rate is now accepted by the international science community as evidence that neutrinos have the ability to change from one of the three known neutrino forms into another. This

characteristic, called neutrino oscillation, implies that the neutrino has mass, a property that is not included in the current standard model of elementary particles (in contrast, particles of light, called photons, have zero mass). Davis's detector was sensitive to only one form of the neutrino, so he observed less than the expected number of solar neutrinos.

BNL's solar neutrino research at the Homestake Gold Mine was funded, in succession, by the chemistry office of the Atomic Energy Commission, the Energy Research & Development Administration, and then by the Department of Energy's Division of Nuclear Physics.

Davis earned a B.S. and an M.S. from the University of Maryland in 1937 and 1940, respectively, and a Ph.D. in physical chemistry from Yale University in 1942. After his 1942-1946 service in the U.S. Army Air Force and two years at Monsanto Chemical Company, he joined BNL's Chemistry Department in 1948. He received tenure in 1956 and was named senior chemist in 1964. Davis retired from the Lab in 1984, but maintained an appointment in Chemistry as a research collaborator. In 1985, he joined the University of Pennsylvania to continue experiments at the Homestake Gold Mine with Professor Kenneth Lande. Davis had an affiliation with the university as a research professor. Davis was a member of the National Academy of Sciences and the American Academy of Arts and Sciences. He won numerous scientific awards, including the 1978 Cyrus B. Comstock Prize from the National Academy of Sciences; the 1988 Tom W. Bonner Prize from the American Physical Society; the 1992 W.K.H. Panofsky Prize, also from APS; the 1999 Bruno Pontecorvo Prize from the Joint Institute for Nuclear Research in Dubna, Russia; the 2000 Wolf Prize in Physics, which he shared with Masatoshi Koshiba, University of Tokyo, Japan; and the 2002 National Medal of Science.

Vasilis Fthenakis of the Energy Sciences & Technology Department with a Certificate of Appreciation "for superior technical, management and communications skills exhibited in photovoltaic environmental research and in effective dissemination of research results." An expert in chemical environmental and safety assessment, Fthenakis heads the National Photovoltaic Environmental, Health and Safety (EH&S) Research Center operated at BNL under the auspices of DOE. Photovoltaics are devices that convert solar energy to electricity. The center fosters the safe and environmentally friendly operation of photo-

Raymond Davis Jr.

in a 1984 photograph

safety needs of the photovoltaics industry is recognized and appreciated. While photovoltaics supply only about one percent of the U.S. electricity needs today, the technology is bound to be a major energy source in the future. The efficiency of photovoltaic cells and modules and the cost of producing them are constantly improving as a direct effect of R&D support from the Office of Energy Efficiency & Renewable Energy, and the recently announced American Solar Initiative should accelerate these improvements."

Fthenakis said, "I am gratified that my work

in addressing the environmental, health, and

voltaic facilities and products.

DOE Honors Vasilis Fthenakis

OE's Office of Energy Efficiency & Re-

newable Energy has honored scientist

For Photovoltaic Environmental Research

Photovoltaics have numerous environmental advantages over conventional power technolo-



gies; however, manufacturing solar cells requires the use of some toxic and flammable substances. Fthenakis and his associates help to minimize risk while ensuring economic viability and public support of the photovoltaic industry.

A native of Greece, Fthenakis received his undergraduate degree in chemistry from the University of Athens, a master's degree in chemical engineering from Columbia University, and a Ph.D. in fluid dynamics and atmospheric science from New York University. Fthenakis joined BNL as a research engineer in 1980 and has served (continued on page 2)



fter a rigorous peer Areview and on-site survey of staff, facility, and services, BNL's Occupational Medicine Clinic (OMC) recently achieved accreditation by the Association for Ambulatory Health Care, Inc.

OMC's long-standing commit ment to providing quality ambulatory health care.

"This accreditation validates the continuing dedication and hard work on part of the OMC staff." — Joseph Falco Occupational Medicine Clinic Manager

(AAAHC). Achieving AAAHC and has interacted with OMC has a team of lab technicians/ accreditation underscores staff. OMC administrative per- phlebotomists (professionals sonnel coordinate the scheduling of employment physicals, ensure that all necessary paperwork is completed, and follow stringent confidentiality procedures when handling employee medical charts. The OMC also provides blood testing, visual and hearing screenings, and medical surveillance and certification examinations as required by regulation and best practice. This assures that workers are fit to perform their unique jobs at BNL and that they are not being harmed by their job in any way. But, that is just the beginning. The OMC has a long list of responsibilities and services. Led by Falco, OMC physicians and nurses also conduct fitness-for-duty evaluations, DOE-mandated drug and alcohol screening, and travel medicine guidance. They are directly involved in working

with employees and management on health, safety and environmental issues, health benefits, and in managing occupational injuries for optimal recovery and return to full duty.

In addition, OMC who can draw blood for test ing). Employees can bring in a prescription from their own physician and have blood tests done. For confidentiality purposes, the results are then sent directly to the employee's personal physician. Susan Dwyer, a lifeguard at the Lab's pool, says, "I have often gone to the OMC to have blood tests done. Having the blood drawn on site is convenient and very timesaving. The staff is compassionate and professional, and my doctor has the results within two days. This is a great service for employees." To obtain OMC services, employees can walk in to the clinic or phone Ext. 3670. At the reception desk employees will be greeted by friendly staff who then direct them to the doctor, nurse or phlebotomist.

Davis was born in Washington, D.C., on October 14, 1914. He is survived by his wife Anna; his sons Andrew, Roger, and Alan; his daughters Martha Kumler and Nancy Klemm; and 11 grandchildren. — Mona S. Rowe

Bill Hempfling, Director of Human Resources and Occupational Medicine said, "I am proud to say that this is the fourth time the OMC has achieved AAAHC accreditation. I applaud the staff at OMC because they are committed to providing the highest level of ambulatory care, health education, and wellness services to all employees."

Joseph Falco, who heads OMC, adds, "This accreditation validates the continuing dedication and hard work on part of the OMC staff. We are all pleased that our efforts have been recognized by a third party."

Since all employees are required to take an employment physical when they start working at the Lab, every employee already knows Building 490

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The Bulletin

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 Christine Carter, Ext. 2873.
- Additional information for Hospitality Committee events may be found at the Lollipop House and the laundry in the apartment area.
- The Recreation Building (Rec. Hall) 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, 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: CIGNA Rep On Site

10 a.m.-3 p.m. CIGNA's Janice Petgrave is in Bldg. 185, to assist CIG-NA medical plan participants with claims issues. Call Linda Rundlett, Ext. 5126, for 30-min. appointment.

Mondays & Thursdays: Kickboxing

\$5 per class. Noon-1 p.m. in the gym. Registration is required. Christine Carter, Ext. 5090.

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

Noon-1 p.m., Brookhaven Center North Rm. Adam Rusek, Ext. 5830, rusek@bnl.gov.

Tues. & Thurs.: Ving Tsun Kung Fu

Noon-1 p.m., Brookhaven Center, North Room. \$80/month or \$10 per class, pay as you go. Taught by Mas-ter William Moy. Scott Bradley, Ext. 5745 or bradley@bnl.gov.

Tue., Thu, & Fri: Upton Nursery School 8:30 a.m.-noon, Rec. Hall. 2- and 3-day programs available. Kati, 821-4131.

Tuesdays: Welcome Coffee

10 a.m-noon, Rec. Hall. First Tuesday of every month is special for Lab newcomers and leaving guests. Lisa Yang, 979-3937.

Tuesdays: BNL Music Club

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

Tuesdays: Jiu Jitsu Club

6:30-7:30 p.m. in the gym. All levels, ages 6 and above. \$10 per class. Tom, Ext. 4556.

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/toastmstrs/.

Tues., Wed. & Thurs: Rec Hall Activities

5:30-9:30 p.m. General activities, TV, ping pong, chess, games, socializing. Christine Carter, Ext. 5090.

Wednesdays: On-Site Play Group

10 a.m.-noon. Rec. Hall. An infant/toddler drop-in event. Parents meet while children play. Fang Dong, 871-5362.

Wednesdays: Weight Watchers Noon-1 p.m. Michael Thorn, Ext. 8612.

Wednesdays: Yoga

Noon-1 p.m., B'haven Center. Free. Ila Campbell, Ext. 2206, ila@bnl.gov.

Wednesdays: Ballroom Dance Class Brookhaven Center, N. Ballroom. In-

Co<mark>mmunications Program</mark> ins Top Industry Award

n Thursday, June 8, 2006, the Community, Education, Government, and Public Affairs (CEGPA) directorate of Brookhaven National Laboratory and their communications consultant. M Booth & Associates, received a 2006 Silver Anvil Award in the "Issues Management: Government" category from the Public Relations Society of America (www. prsa.org/_Awards/main/index. asp?ident=index0). The winning program, "RHIC Results: Perfect Fluid Creates Big Bang for Lab," described CEGPA's successful efforts to promote RHIC research and inform key decision makers about the funding situation in 2005-06.

The Silver Anvil Award, considered the top award in the public relations industry, was

Employee Assistance

The OMC also sponsors an

employee assistance program

(EAP). An EAP professional,

Nancy Losinno, is available

to counsel employees on

problems affecting their sense

of well being or that of an

immediate family member.

Employees are encouraged to

make an appointment if they

think they need assistance to

work out any problems re-

garding employment, marital,

family, bereavement, drugs or

alcohol, or emotional and

mental health issues. Savs

Falco, "I think this is one of

the most important services

we offer." Although officially

a part of OMC, the EAP func-

tions independently, with

Program

established by the PRSA in 1946 to recognize organizations that have successfully addressed a contemporary issue with exem-

plary professional skill, creativity, and resourcefulness. The Silver Anvil Awards evaluate the strategic nature of public

Margaret Lynch (front, center), Assistant Laboratory Director for Community, Education, Government & Public

Affairs (CEGPA), is pictured holding the 2006 Silver Anvil Award with other members of the CEGPA Directorate.

relations programs, assessing key components including research, planning, execution, and evaluation.

Celebrate Gerhart Friedlander's 90th, 7/28

An afternoon of talks, reminiscences by a variety of speakers

BNL colleagues, friends, and family will gather in the Hamilton Seminar Room of the Chemistry Department, Bldg. 555, at noon on Friday, July 28, to celebrate Gerhart Friedlander's 90th birthday. Friedlander, distinguished nuclear chemist and Chair of Chemistry, 1968-1977, will be honored by a half-day session of reminiscences presented by a variety of speakers.

Joining BNL in January 1948, Friedlander found his principal research interests in nuclear

spectroscopy and high-energy nuclear reactions. After his retirement in 1981 he remained active in research, turning his attention to solar neutrinos and spearheading the gallium experiment that eventually became the GALLEX project. From 1992 to 2000 he was Editor-in-Chief of the magazine Science Spectra.

A buffet lunch is also planned as part of the celebration. To register, or for more information, contact Ralph Weston, weston@.bnl.gov or Ext. 4373.

health screening examina-

OMC also works hand-inhand with the Suffolk County Department of Health Services on issues such as flu epidemics and emergency preparedness.

Says Falco, "We have a variety of responsibilities, but the primary mission of the OMC is to provide quality care that is individualized, confidential, and promotes optimal physical and emotional well-being. Employees should feel free to stop in or call us if they need any type of assistance. If we can't provide them with the necessary service here, we will do our best to refer them to an appropriate outside agency. At all times, we are committed to the safety, good health, and

Service Anniversaries

The following employees celebrated service anniversaries during April 2006.

– 40 Years –
Robert Barone Finance
- 30 Years -
Charles La SallaEmerg. Svcs.
– 25 Years –
Thomas RobertsNNS
Rita Kito Budget Office
- 20 Years -
John Bourquin III Plant Eng.
John Kenny Plant Eng.
Michael Clancy Jr Waste Mgmt.
- 10 Years -
G CarrNSLS
Ante Ljubicic Physics
Timothy Hallman Physics
Mary Phraner-Douglas Env. Rest.

Mary Phraner-Douglas.	Env. Rest.
Alireza Javidfar	C-A
Gary Polonski	. Plant Eng.
Daniel Chapman	SSD
George Bostick	SSD

The following employees celebrated service anniversaries during May 2006.

- 40 Years -

Lillian Kouchinsky ... Director's Office 20 V

— 30 Years —		
Jack Preses	.Chemistry	
Lawrence Kleinman	Env. Sci.	
Brian Mayo	PPM	
Frederick Molone	CFS	
Richard Kayte	Plant Eng.	
Nancy Lofaro	EENS	
James YerryEn	nerg. Svcs.	

OMC Achieves Third-Party Ambulatory Care Accreditation

tion.

records. This ensures a high level of confidentiality. Employees can access EAP services by calling Ext. 4567.

Employee Wellness

In addition to medical services, OMC also has an employee wellness commitment. Under its Health Promotion Program, directed by Michael Thorn (Ext. 8612), OMC provides a variety of services including screening for blood pressure, podiatry, skin cancer, and diabetes. Many employees take advantage of the on-site Weight Watchers and smoking cessation programs, and the annual HealthFest, three very popular wellness programs coordinated by the OMC. OMC also periodically (cont'd)

structor: Giny Rae. New series starts 3/15. See notice, page 3. John Mil-lener, Ext. 3853; Madeline Windsor, Ext. 5069.

Thursdays: Reiki Healing Class

Noon-1 p.m., Bldg. 211 Conference Rm. Nicole Bernholc, Ext. 2027.

Fridays: Family Swim Night

5-8 p.m. BNL Pool. \$5 per family.

Fridays: BNL Social & Cultural Club

6-9 p.m., North Ballroom, Brook-haven Ctr., dance lessons, 9-11:30 p.m. general dancing. Rudy Al-forque, Ext. 4733, rudy@bnl.gov.



its own separate entrance, invites every employee on well-being of Lab employees." waiting area, office, staff and site to come for a preventive — Jane Koropsak

DOE Honors Fthenakis For Photovoltaic Environmental Research (cont'd)



"I am gratified that my work in addressing the environmental, health, and safety needs of the photovoltaics industry is recognized and appreciated." — Vasilis Fthenakis

as head of the National Photovoltaic Environmental, Health & Safety Research Center since 2002. The center is cited in the annual report of DOE's Solar Energy Technologies Program as "the world's best source on PV-EHS, providing accurate information related to EHS issues and perceptions."

Fthenakis is frequently invited to give presentations and participate in expert workshops in Europe and Japan. Among other things, his research and presentations influenced a recent decision by the German Ministry of the Environment (BMU) to approve a new 100 MW/yr CdTe PV manufacturing plant in Germany by a U.S. company, which was awarded a 47-million Euro subsidy from the European Union.

Fthenakis's publications include coauthor-

ing the book Prevention and Control of Accidental Releases of Gases and over 200 scientific papers and reports. He is a Fellow of both the American Institute of Chemical Engineers and the International Energy Foundation. While maintaining his position at the Lab, Fthenakis recently established and became the first Director of a new Center for Life Cycle at Columbia University. The new center will capitalize on synergies between the Energy Sciences Department at Brookhaven and the Earth and Environmental Engineering Department at Columbia. He has also served as a safety and environmental consultant for major oil and chemical companies in the U.S. and as an expert witness on major chemical incidents in the U.S. — Diane Greenberg

James Durham Plant Eng. - 25 Years -Michael Mapes C-A - 20 Years -Shuchen Feng.....NSLS Stephen DeweyChemistry Kimberly Boomer..... BES Martin Fallier..... Plant Eng. Ramesh Gupta......Magnet Div. Stephen Springston..... Env. Sci - 10 Years -

Kathryn Clifford	Rad. Ctrl.
Joan Marshall	NSLS
James Trombacco	Waste Mgmt.

Arrivals & Departures

- Allivais	_
Weiming Guo	NSLS
Michael Lafky	C-A
Elena Shumay	Medica

Departures –

Cornelius Donahue	Physics
William Nolan	Biology
Cathleen Wehrmann	. HR&OMC

The Bulletin

Patchogue-Medford Student Wins Brookhaven Lab's Model Bridge Contest

Celestino Alem (second from right), a Patchogue-Medford High School student, won first place in BNL's 2006 Model Bridge Contest. Over 250 students from 17 Suffolk County high schools entered their model basswood bridges in the contest with the goal of making the lightest bridge that held the most weight. Celestino's bridge weighed 29.3 grams and held 122.5 pounds, or 1896.45 times its own weight. Last year's winner, Benjamin Coburn (far right), a home-schooled student from Center Moriches, took second place with a bridge that weighed 23.2 grams and held 96.54 pounds, or 1887.05 times its own weight. Third-place honors went to Konrad Grossman (second from left) from Center Moriches High School, whose 16.7-gram bridge held 66.47 pounds, or 1805.43 times its own weight. Joining them is Allison Truhlar from Ward Melville High School, who won the ග් aesthetic prize for creating the most attractive bridge.



Lil' Cliff & the Cliffhangers Dance Party, Tonight



Lil' Cliff & the Cliffhangers, a local band, will play Chicago-style and West Coast "jump blues" for a dance party on Friday, June 23, from 7 to 10 p.m. in Brookhaven Center. Sponsored by the BNL Music Club, the event is open to the public. All visitors to the Lab age 16 and over must bring a photo ID. The band consists of Lil' Cliff — Cliff Bernard — on harmonica, Rick Street on bass, Tom DeFranza on drums, and Dennis Phelps on guitar. Lil' Cliff, a baritone, is the lead vocalist, and all band members join in on vocals. The group plays regularly in Long Island clubs and will be featured in the upcoming Riverhead Blues Festival in July. Tickets, at \$10 each, can be bought online at www.ticketweb.com or at the BERA Store in Berkner Hall. Call Ext. 5257 for more information.

Science Camp for Elementary School Scientists

All BNL employees are invited to register their children for BNL's Summer Science Explorations Program, a free offering from the Lab's Science Learning Center. The three-day summer camp will be held from Tuesday through Thursday, 8:30 to 11:30 a.m. Students who are entering the 4th, 5th, and 6th grades will participate in a hands-on environmental field experience, an engineering day, and a day devoted to the solar system.

The Science Learning Center has reserved the following two weeks in August for the children of the BNL community: August 1-3, and August 15-17. Space is limited, so register your child/grandchild early by contacting the Science Learning Center Program Office, Ext. 4495. Children must attend all three days. The parents/ grandparents of participating children are also welcome to attend.

One-on-One Retirement Counseling, 6/26

A TIAA-CREF consultant will visit BNL on Monday, June 26, to answer employees' questions about financial matters. The consultant will help BNLers better understand the importance of protecting assets against inflation; the right allocation mix; the benefits of TIAA-CREF retirement income flexibility; and comparing lifetime income vs. cash withdrawal options. For an appointment, call Arlene Lyons, (866) 842-2053, Ext. 4629. *Note: Not the on-site Ext. 4629*.

Defensive Driving Class, 7/15

Seating is limited to 40 people and pre-registration is required for the next six-hour Defensive Driving (Point & Insurance Reduction) course, to be held on Saturday, July 15, in Room B, Berkner Hall, from 9 a.m. to 3:30 p.m. Organized by the ESH&Q Directorate, sponsored by USA Training Inc. and delivered by EAS Associates, the course is open to BNL, BSA, and DOE employees, facility-users, and their families. The cost is \$30 per person. To register, call Edward Sierra at 821-1013 and leave a voicemail with your telephone number. For further information, call Sarah Wiley, Ext. 4207.

Get to Know Your Lab! Water Treatment Facility Tour, Today

Check out the pictures and read all about the Water Treatment Facility (WTF), in the Bulletin's 2006 Water Quality Consumer Confidence Report (see www.bnl.gov/bnlweb/pubaf/ water/2006Report.pdf) and then come see the WTF for yourself by attending the lunchtine tour for BNLers today, Friday, June 23, from noon to 1 p.m. Organized by Tour Program Coordinator Elaine Lowenstein of the Community Relations Office, the tour will begin in the upper lobby of Berkner Hall at noon sharp. For more information, contact Lowenstein, Ext. 2400.



Richard Lutz in the control room of BNL's Water Treatment Facility

Internet Safety Presentation, 6/27

(continued)

– THIS WEEKEND –

Friday, 6/23

*Employee Tour of the WTF Noon-1 p.m. All BNLers are invited to the lunchtime tour of the Water Treatment Facility. Meet in the upper lobby area of Berkner Hall at noon sharp. Elaine Lowenstein, Ext. 2400.

* 'Jump Blues' Dance Party

See notice at left.

7-10 p.m. Brookhaven Center. Lil' Cliff & the Cliffhangers will play at a dance party sponsored by the BNL Music Club. All are welcome. Tickets, \$10. See notice at left.

Korean Movie Night

7 p.m., Biology Seminar Room. The Asian Pacific American Association and the English for Speakers of Other Languages Program invite all BNLers to see "Taegukgi (Brotherhood)," a movie that tells the dramatic tale of two brothers forced to fight in the Korean War, and how that conflict lays siege to their family and friends. (2:20, Rated R) Susan, Ext. 7988.

— WEEK OF 6/26 —

Monday, 6/26

IBEW Meeting

6 p.m. Centereach Knights of Columbus Hall, 41 Horseblock Rd., Centereach. 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, 6/27

*Internet Safety Presentation

Noon-1 p.m., Berkner Hall. See notice at left.

Thursday, 6/29

BJ's Wholesale Club Demo

11 a.m.-2 p.m., Berkner Hall. Representatives from BJ's will present BNLers with a special 15-month membership for \$30 for two membership cards (normally \$45). Give aways and prizes too. Pete, 851-0214.

— WEEK OF 7/9 —

Saturday, 7/15

*Bus Trip to New York City

Bus leaves from the Recreation Bldg. in the apartment area at 9 a.m., dropping off participants at Bryant Park and leaving the city at 6 p.m. Tickets cost \$10 for adults and \$5 for children ages 2-12. For more information or to register, contact Hanna Herman, 849-2249 or haniaherman@yahoo.com, or Jing Rochman, 891-9430 or deshanghai@ yahoo.fr. See notice at left.

*Defensive Driving Course

9 a.m.-3:30 p.m., Berkner Hall, Room B. The cost is \$30 per person. To register, call Edward Sierra at 821-1013 and leave a voice mail with your telephone number. For further information, call Sarah Wiley, Ext. 4207. See notice at left.

Fidelity Investment Counseling, 6/28

A Fidelity Investment representative will be at the Lab on Wednesday, June 28, to hold sessions with individual employees interested in learning more about their retirement-savings and investment options. Schedule one of the 30-minute appointments by calling (800) 642-7131.

Hospitality Bus Trip to NYC, 7/15

All BNLers and their families are invited to join the BNL Hospitality Committee for a "Day in the City" coach trip, leaving from the Recreation Bldg. in the apartment area at 9 a.m. on Saturday, July 15, dropping off participants at Bryant Park and leaving the city at 6 p.m. Tickets cost \$10 for adults and \$5 for children ages 2-12. Reservations and payments must be made in advance. Money will be collected at Berkner Hall on Tuesday, July 11, from 11 a.m. to noon. For more information or to register, contact Hanna Herman, 849-2249 or haniaherman@yahoo.com, or Jing Rochman, 891-9430 or deshanghai@yahoo.fr. Join Suffolk County Police Department Sergeant John Cowie, a member of the Computer Crime Section, today, Tuesday, June 27, from noon to 1 p.m. in Berkner Hall, where he will present "Internet Safety: Protecting Your Children." All are welcome to attend this free talk, but preregistration is necessary. Check your mailbox for registration forms. Return completed forms to Michael Thorn, Bldg. 490. For more information, contact Thorn at Ext. 8612.

'Oral Health and Diabetes,' 7/12

Mitchell Shapiro, DDS, will discuss how to maintain good oral health and options for treatment of oral health problems on Wednesday, July 12, from noon to 1 p.m. in Berkner Hall, Room B. Preregistration is required to attend this talk. Check your mailbox for registration forms. For more information, contact Michael Thorn, Ext. 8612 or mthorn@bnl.gov.

Independence Day Raffle at Cafeteria

Nayyarsons, the Lab's food service provider, will hold an Independence Day raffle for a grand prize of a \$200 American Express gift card beginning Monday, June 19. This raffle is open to all BNLers who print their name and phone number on the back of each cafeteria receipt and place it in the raffle box located behind the cashiers. The winning receipt will be drawn on Friday, June 30.

— WEEK OF 7/24 — Friday, 7/28

*Celebrate Friedlander's 90th B-Day

Noon, Hamilton Seminar Rm., Bldg. 555. An afternoon of talks, reminiscences by a variety of speakers, BNL colleagues, friends, and family. Friedlander, distinguished nuclear chemist and Chair of Chemistry, 1968-1977, will be honored by a half-day session of reminiscences presented by a variety of speakers. See notice, page 2.

Note: This calendar is updated continuously and will appear in the Bulletin whenever space permits. Submissions must be received by the preceding Friday at noon to appear in the following week's Bulletin. Enter information for each event in the order listed above (date, event name, description, and cost) and send it to bulletin@bnl.gov. Write "Bulletin Calendar" in the subject line.

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 benefits-eligible employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present benefits-eligible employees within the Laboratory; and (3) outside appli-cants. 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. Access current job openings on the World Wide Web at www.bnl.gov/HR/jobs/.

LABORATORY RECRUITMENT – Opportunities for Laboratory employees

TB3719, OFFICE SERVICES ASSISTANT (CW-2) – Requires good organizational skills and self motivation with a minimum of two years relevant work experience. Under minimum supervision, provides clerical and office work support for the Engineering and Construction Services design office. Responsibilities include microfilming original engineering drawings; maintenance of project files, database entry, archiving completed projects, copying, collating, and assembling reports and presentations. Also responsible for clean up and maintenance of the drawing reproduction area, inventory and restocking of supplies, filling copy machines and plotters with paper and ink, send out original drawings for blueprints, process shop drawings, packing and mailing documents. Plant Engineering Division.

OPEN RECRUITMENT – Opportunities for Laboratory employees and outside candidates

MK3837. POSTDOCTORAL RESEARCH ASSOCIATE -- Requires a Ph.D. in biochemistry or physics. Experience in electron microscopy and image processing or structural biology is preferred but not required. Research involves structural analysis of a membrane protein complex by single particle electron microscopy and image processing. Major instruments include JEOL-1200EX and JEOL-2010F cryo-electron microscope. Under the direction of H. Li, Biology Department.

MK3756. POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph. D. in chemistry or a related field. Experience in theoretical techniques for analyzing and modeling molecular level processes; especially desirable are those pertinent condensed-phase charge transfer to and experience in computational implementation of techniques for simulating molecular-level electronic structure and energetics highly desirable. Research will involve the theoretical and computational analysis of charge transfer involving molecular systems in condensed phases; elucidation of mechanistic role of electronic and nuclear degrees of freedom controlling the kinetics. The theoretical tools combine quantum mechanical and classical techniques. Under the direction of M. Newton, Chemistry Department.

MK3978. PATENT ATTORNEY/LICENSING ASSOCIATE (A-9, Reposting) - Requires at least an MS in chemistry, materials science, or related fields, preferably with more than five years industrial and/or academic research experience in materials science or nanotechnology, and at least three years experience in technology transfer activities such as intellectual property evaluation, licensing, patent prosecution and the like. Excellent analytical, market research, negotiating, and communication skills are a must. The ideal candidate will have a JD with registration to practice before the USPTO or an MBA. Will be responsible for continuous interaction with research staff in the fields of nanomaterials and materials science to identify research capabilities and interests and new inventions; for conducting evaluations of invention disclosures for patentability and commercial potential in fields related to materials and nanomaterials synthesis, characterization, and use: for developing strategies for potential technology commercialization projects with industry in these fields; for identifying potential licensees for nanomaterials or materials science intellectual properties; and for negotiating the intellectual property license agreements covering such technologies. Office of Intellectual Property & Sponsored Research.

and writing skills, and 15+ years of related experience. Previous managerial experience is highly desirable. Will report to and provide direct managerial and administrative support to the ALD for Energy, Environment and National Security (EENS) in the operation and development of Directorate programs. Will ensure the application of DOE, BNL and other pertinent regulations, coordinate audits and reviews within the EENS Directorate, and oversee and implement specific improvement initiatives. Will participate in or coordinate selected special projects; represent the ALD, as requested, at meetings, committees, and planning sessions; and act as liaison between ALD and organizational units reporting to the ALD. Will also assist with requests for information from the Laboratory, DOE, and outside organizations. Director's Office.

discipline and excellent analytical, oral,

TB3688, RESEARCH ENGINEER II (P-7) Requires a bachelor's degree in mechanical engineering with at least five years experience in mechanical design and related manufacturing technologies. A strong background in stress and thermal analysis, CAD/CAE computer skills with ANSYS, Mechanical, Pro-E, AutoCAD, Excel, and MSProject or equivalent programs is required. Must be interested in doing creative engineering in order to develop and build unique equipment. Familiarity with systems and components used with particle accelerators such as vacuum systems, high voltage/high current equipment, optical equipment, remote drives, and/or magnets is desirable. Experience with particle accelerators is a plus but not necessary. Will help design, fabricate, assemble, and test mechanical equipment and components used in particle accelerators and their associate experimental apparatus. Collider-Accelerator Department.

TB3740. ELECTRICIAN A (4 term positions) - Under minimum supervision lays out, constructs, installs, maintains, repairs and operates (in accordance with the national electrical codes, or as other wise directed) electrical systems, equipment, controls and related devices. May be required to perform similar duties on other than maintenance division equipment and facilities. Plant Engineering Division.

TB3723. REFRIGERATION & AC ENGINEER - Under minimum supervision constructs, installs, repairs, maintains and operates refrigeration, air conditioning, ventilating and auxiliary and related equipment. Will perform the same work on air compressors and vacuum pumps whether or not associated with the above equipment. Shift workers assigned to Building 600 acknowledge all Laboratory alarms in the control room and make appropriate notifications. Plant Engineering Division.

Motor Vehicles & Supplies

02 HARLEY DAVIDSON SOFTAIL STD -Red, \$4K in chrome work, saddle bags, indoor cover, mint cond., picts avail. 4400 mi. \$13,500/neg. John, 473-7351.

01 SUZUKI SV650S - tank and tail bags, accessories, helmet, v.gd. cond. 5200 mi. \$3,200. Henry, Ext. 5370.

01 LINCOLN LS - 4 dr., loaded, 5cd, heated leather seats, dual temp. ctrls., s/roof, alarm, excel. cond. 52K mi. \$12,000. Denise, 871-0561.

00 MERCURY SABLE LS PREMIUM drk. blue/gray int., loaded, 3.0 DOHC 24V tight eng., good cond., listed over \$6,000, must sacrific 144K mi. \$5,000. Frank, Ext. 4748 or 277-0464.

00 FORD EXPLORER XLS - red, V6, a/t, p/s, c/c, p/w, c/d, 2WD, new tires running boards, privacy glass, orig. owner. 55K mi. \$7,500. Scott, 567-4661 or 591-4011.

00 DODGE GRAND CARAVAN,SPORT -6cyl, excel. cond. 124K mi. \$4,500. Mark, 849-3318.

99 BMW 323 - 4dr., black, a/t, tan leather, original owener, upgraded stero, p/s, p/w, sunroof, great cond. 53K mi. John, 283-2831.

96 DODGE INTREPID - orig. owner, well main., new tires, brks., insp., V6, 3.3L, a/t, p/s, p/b, p/l, p/w, am/fm/cass. 159K mi. \$2,000/neg. Ben, 921-9133. SNOW TIRES - 2 sets, on rims; 186/60r14 Perelli and 185/70r14 Bridestone Blizzack. Anthony, 929-4903.

Boats & Marine Supplies

15' SUGAR SAND MIRAGE - JetBoat, 1995, well maintained, w/trailer. \$2,750. Mel, Ext. 5963 or 298-8963.

25' TANZER SAILBOAT - includes comp., DF, VHF (new), GPS (new), RF and extra jib. \$9,000/neg. Ext. 2815 or 874-0437.

Furnishings & Appliances

AIR CONDITIONERS - 3, 5,300 Btu, EER 10.8, \$90 ea; one 8000 Btu, EER 9.8, \$120. All w/thermostats, remotes. 689-2342. CHEST FREEZER - small GE 23" deep X 29" wide X 33" high. \$150. Barbara, Ext. 5896.

DESK CHAIR - blk. leather back, lg. upholstered seat, wood frame/base, arms, \$45; folding twin bed, steel, \$35. 473-6546.

DESKS - 2 oak wood-finished desks w/ matching file cabnets, never used, desks \$250 ea., file cabents \$125 ea. Deborah, 757-3952.

DISHWASHER - stainless steel interior, \$75; Microwave \$25. Karl, Ext. 3116.

ENTERTAINMENT UNIT - wood color, Teak, 96" wide, 77" high, 22" deep, excel. cond., pics avail. ask \$490. Walter, 516-448-4208.

FREEZER - Sears upright, "coldspot", 6 dr. shelves, 2 wire shelves, frost free, 18" x 27" x 50", \$100. 928-0297.

KITCHEN TABLE & FOUR CHAIRS - Light maple round table with 2 leaves, sturdy almost new light brown vinyl & metal chairs, \$125 obo. Frank, Ext. 2022 or 433-9205.

RANGE - GE electric, white w/ black glass door, great cond., \$100. Karl, Ext. 3116.

RECLINER - light brown, brand new, \$225. 473-0178.

SHELF UNIT - sew, solid natural finished oak, five shelves. \$75. Kim, Ext. 7465 or 399-3098.

SHELF UNIT - new, solid natural finished oak, five shelves. \$75. Kim, Ext. 7465 or 399-3098.

SOFA BED - queen, matt. like new, gd. cond., \$100; Navsystem, Garmin GPSV, mint, all acc., + mini bean bag, b/o. Herbert, 928-0297.

STEAM MACHINE - brand name-shark, hand portable type w/all attachments, use for home, cars, or boats, like new. \$25. Fred, Ext. 5319 or 369-9720.

Audio, Video & Computers

CAR STEREO - DuraBand, CD/MP3/CDR/ CDRW playback w/MP3 display, 45Wx4, slide down/detachable panel w/remote, 30 presets, \$120. Laura, 434-5824.

CAR STEREO - Pioneer, 50W/channel, CDR/RW/MP3/WMA playback, satellite/iPod compatible, blue OEL display/ screensaver, \$200. Laura, 434-5824.

CASSETTE DECK - Technics RS-TR373 dual cassette deck. Tape-to-tape dubbing. Owner's manual incl. Like new. \$25. Gary, Ext. 7045.

COMPUTER - Gateway Pent III-400, 13.6 Gb drv wiped, CD, modem, 17" mon., floppy, kybrd, mouse, 360 watt spkrs. \$250 neg. 516-702-6145.

LAPTOP - Compaq 1050US Centrino, 512MB, DVDR-CDRW, 15.4" mon., XP SP2, 6 mo. extd. warr., 1.4 GHz, 40GB HDD, 5.5lb, 802.11b, loaded. \$550. Ext. 4367.

MONITOR - Compaq MV900 19" great cond. \$30. Ext. 3747.

ROUTER - Linksys, 4 port, cable/DSL router, new, still in box, vacuum packed, orig. \$100, ask \$50. Laura, 434-5824.

SPECTRUM ANALYZER - BSR model SA-3X audio spectrum analyzer. Cool addition to your stereo. Orig. pkging incl. \$20. Gary, Ext. 7045.

Sports, Hobbies & Pets

BIKE RACK - (2) mounts to Thule roof rack, locks and keys, requires removal of front bike tire to mount. \$30 ea. Kathleen,



Participants in Pianofest, a summer workshop in the Hamptons, will perform showcase recitals in Berkner Hall on two Wednesdays, June 28 and July 19, at noon.

Pianofest emphasizes the development of style and interpretation in piano performance for students already possessing considerable technical capability. The workshop's founder and director, Paul Schenly, will choose prize-winning Pianofest participants to perform from the great classical repertoire for the BNL recitals. The recitals



will be patterned upon the openly critiqued performances given by Pianofest students in the Southampton Cultural Center, Mondays at 4 p.m., from July 3 through July 31. For more information, call 329-9115.

Sponsored by Brookhaven Science Associates, noon recitals are free and open to the public. All visitors to the Lab age 16 and over must bring a photo ID.

Tools, House & Garden

LAWN MOWER - Murray, like new, 6.5 hp gas powered \$50. Fred, Ext. 5319 or 369-9720.

Miscellaneous

AQUARIUM - 45 gal., incl. all accessories, custom built solid oak stand w/matching canopy, \$250. Bill, 886-1182.

FIG TREES - and Hydrangeas, both 3 yrs. old, Pomegranate trees, 4 yrs. old, all are potted and \$10/ea. John, 744-5867.

TICKETS - 2 for Roger Waters (Pink Floyd) @ Jones Beach, 9/15, 8 p.m. Sect 4R, Row KK, Seats 5-6 \$75 ea. Sev, Ext. 5647.

Yard & Garage Sales

PATCHOGUE - Sat., 6/24, Lillian Place, housewares, tools, toys, baby items, quilter's material, clothes & books. Ext. 2852.

For Rent

COOPERSTOWN - Baseball Hall Of Fame, 4-bdrm. house on 200 acres, 7 mi. from center of town, newly remodeled, all new appl, A/C, fully furnished, sleeps 8 comft. \$785/wk. Rick, Ext. 3005 or 874-9639.

FARMINGDALE - 4 bdrm., 2 bath, all new kit./bath, s/s appl., near golf course, hot tub/spa, great back yard, newly painted, great SD, lots of room for all. \$2,600/mo./ neg. Paul, 516-633-7275.

MILLER PLACE - share Ig. furn. non smkg. Colonial house in prof. resid. area, backyard deck, internet, cac, tv cable, own w/w furn. bdrm. 10 mi. to BNL. \$675/ mo. 744-8386.

MILLER PLACE - share Ig. furn. non smkg. Colonial house in prof. resid. area, backyard deck, internet, cac, tv cable, own w/w 14x12 bdrm. 10 mi. to BNL. \$675/mo. 744-8386.

OCALA, FL - 3-bdrm., 2-bath, unfurnished 2-yr.-old ranch in beautiful gated Ocala Palms retiree golf community, only 6-mo. lease or longer will be considered. \$1,400/mo. Maria, Ext. 5483 or 744-0790.

PATCHOGUE - 1-bdrm. apt., I/r, eik, 2nd floor pvt.. ent., w/w carpet, new appliances, no smkg./pets, credit check & refs.. 1 mo. sec.. elect not incl. \$975/mo. SHOREHAM - 2 lg. bdrms. & I/r, fully carpeted, kit., full bath, cable, internet access, pvt. ent., on cul-de-sac., no smkg./pets, 8 mi. to BNL. \$1,200/mo. 445-7838.
SHOREHAM - 2 lg. bdrms. & I/r, fully carpeted, kit., full bath, cable, internet access, pvt. ent., on cul-de-sac., no smkg./pets, 8 mi. to BNL. \$1,200/mo. 445-7838.
WADING RIVER - 2 bdrm., eik, lg. I/r, lg. den, lg. deck, pvt. pkg., no kids/pets/smkg. util. extra. \$1,500/mo. 928-9328.

YAPHANK - 2 bdrm., l/r, kit., full bath, lg. yd., + util \$1,000/mo. Christopher, 436-6357.

For Sale

CENTEREACH, NY - 3-bdrm. ranch, 2 bath, eik, *l*/r, d/r, fam. rm. w/fp, fin. bsmt., cac, heated semi-igp, igs, htd. tile firs., alarm, skylgts., hot wtr. htr., deck. \$419,900 Denise, Ext. 2881.

EAST QUOGUE, NY - upgraded condo, 2/2 upper unit 1-car gar., sr. commty, cust. closets, upgrade baths, cac, maint. free, low taxes & common charges, excel. cond. \$629,900/neg. 723-0770.

HOLTSVILLE, NY - expanded 3-bdrm. ranch on quiet street, l/r, d/r, kit., den, bsmt., gar., cac, igp, igs, 15 min. to Lab. \$425,000/neg. 289-0532.

MANORVILLE, NY - 1 bdrm., spacious, lots of closet, incl. all. \$1,000 Annamarie, 878-8967.

MILLER PLACE, NY - built 2003, 3,200 sg. ft., 4/5 bdrms., 2.5 baths, eik w/granite ctrs. & s/s appl., hd.wd. flrs., den w/fp, cac, flr, fdr, full bsmt., 3/4 acre. \$799,900/ neg. Frank, 642-8043.

PORT JEFFERSON, NY - mint Victorian in village ctr., 4 bdrm., 2 bath, 2-l/r, gas f/p, d/r, renov. eik, pvt. igp & decks, waterfall views, attics, gas heat, cac. \$649,000/ neg. 804-4662.

PORT JEFFERSON, NY - historic Victorian in ctr. village, 4 bdrm., 2 bath, 2l/r, gas f/p, d/r, renov. eik, pool, waterfall views, attic, gas heat, cac. \$759,000/neg. 804-4662.

PORT JEFFERSON STA., NY - hi-ranch, mint+, 3 bdrm., 2 bath, updated kit, l/r, windows, office, fully renovated bath, new roof (w/warranty), great location, well-priced. \$419,999/neg. Milind, Ext. 3327 or 331-6725.

SHOREHAM, NY - beautiful Colonial, 4

NS4223. SPECIAL ASSISTANT TO THE ASSOCIATE LABORATORY DIRECTOR (ALD) FOR THE ENERGY, ENVIRONMENT AND NATIONAL SECURITY DIRECTOR-ATE (M-1) - Requires a bachelors, masters, or PhD in a science or engineering 94 PLYMOUTH GRAND VOYAGER - 3.3L 6cyl, a/t, a/c, c/c, abs, pwr pkg, 4 new Michelins, am/fm/cass., well maint. 164K mi. \$1,700/neg. Phil, Ext. 5669.

91 FORD TEMPO - 4 dr., new tires, batt., radio, slight dent in one door, excel. start vehicle, kids. 70K mi. \$600/neg. Fred, Ext. 5319 or 369-9720.

90 CHEVY G20 - high-top conversion van, maroon, front & rear a/c, DVD w/monitor, new tires, always maint, great con 88K mi. \$2,950/neg. 848-4613.

89 FORD BRONCO - excel. cond., 5.8/351V8, 4wd, p/s, p/w., p/b, a/c, c/c, CIII hitch, cap, cooler rack, light bar. 116K mi. \$1,800/neg. Richard, 472-9491.

^{'96} FIFTH WHEEL NOMAD CAMPER -33', 14' slide out, sleeps 6, Awning, v. gd. cond., \$9,500. Phillip, 793-1733.

ROOF RACK - Thule roof rack mount, bars, ski racks w/locks, bought for Ford Taurus, hardly used. \$100. Steve, Ext. 3822 or 929-6527. 872-7897.

DOG GROOMING TABLE - foldable, professional quality, rubber mat surface, like new, \$45 obo. Frank, Ext. 2022 or 433-9205.

DOGGIE FLAP DOOR - for sliding glass doors, allows pet eggress, has panel to secure, lockable, easy install, \$45 obo. , Ext. 2022 or 433-9205.

INVERSION TABLE - Relieve back pain, inprove circulation release tension. new \$325, asking \$165. Frank, Ext. 2022 or 433-9205.

MOUNTAIN BIKE - Raleigh (Scout), girl's, 20 in., 18 speed, metalic teal, excel. cond. \$100. Kathleen, 872-7897.

MUSIC VIDEO - Harvest Gospel Choir video, by Vagabond Productions, 11/15/03. \$18.00. 803-0506.

NORDIC RIDER - exerciser by NordicTrack, \$50 obo. Tom, Ext. 3085 or 744-4535.

SPORTS CARS HANDBOOK - 1951 Hot Rod Handbook and Tom McCahill on Sports Cars, \$18/set. 803-0506. Carter, Ext. 7515 or 654-0411.

PATCHOGUE - beautiful updated 1bdrm. Co-op clubhouse, pool, no pets, no smkg., quick access to main rds. \$1,000/mo. Gary, 463-5973.

RIDGE - 1 lg. studio, bright & warm, w/full bath, priv. ent. and fenced garden, house apart from owner, park in drway, quiet & safe n'hood. \$700/mo. Zhen, 821-0859.

ROCKY PT. - cozy 1-bdrm. apt., 15 min. to Lab, elec. extra. \$825/mo. Lori, 849-3196.

SETAUKET - 3- to 4-bdrm. house, Ig. pvt. property, close to water, shopping & campus, 1 yr. rental from Aug. 1, must love cats. \$2,400/mo./neg. 751-0743 or 632-8123.

SHIRLEY - Ig. 1-bdrm bsmt. apt., includes all, pvt. and quiet. \$750/mo. Ext. 3846.

SHIRLEY - studio apt, suitable for 1., full bath, sep. ent., all incl., cable & internet, no smkg./pets, 5 min. to stores & beach, 1 mo. security. \$550/mo. Ext. 8321.

bdm., 4 bath, full fin. bsmt, att. legal access apt. (\$1,600+mth income) too much too list. Renowned Clarendon Homes. \$739,000/ neg. Nicole, Ext. 5098 or 525-4416.

SHOREHAM, NY - 4 bdrm., 2-1/2 bath, Ig. eik, formal d/r, l/r, den w/fp and skylights, igp w/sauna, fin. bsmt. txs. \$8,785. \$449,900/neg. Michael, 744-1197.

SOUTHOLD, NY - French Normandy style home, 1 level, estate like grounds in downtown Southold, walk to town and beach, no updates needed. \$999,000 Amy, Ext. 8032.

WEST YAPHANK, NY - charming hiranch, 2 bdrm. 2 bath, d/r, eik, full bsmt., f/p, hdwd. throughout breezeway, gar., all new systems, I acre, fenced yd., 10 min. to BNL. \$389,000 329-0270.

On-Site Service Station

BOAT & MOTORCYCLE STARTERS, AL-TERNATORS - The on-site service station can supply needs for boats and m/cycles as well as perform all vehicle services, NYS inspections, etc. Ext. 4034.

Bulletin

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