

## 338th Brookhaven Lecture

# Chemistry's FM Laser: Tuning Light to Analyze a Flame

Even people who only listen to the radio occasionally know the frustration of crackling AM stations and the relief of clear reception upon tuning into an FM station.

Just as FM beats AM for more accurate sound, so a technique called FM laser spectroscopy can beat other techniques for super-accurate investigations using light — especially if the investigator is a chemist, and the events being analyzed are the hundreds of split-second chemical actions taking place as a flame burns.

In fact, since 1995, chemists have been able to tune in with FM laser spectroscopy to view and analyze, one collision at a time, the molecular reactions that occur when a fuel burns, gathering results that contribute to understanding the theory of combustion.

To talk about his research in developing and using this unique analytical technique, Chemist Gregory Hall of the Chemistry Department will give the 338th Brookhaven Lecture on "Chemical Dynamics: Tuning in Molecular Motion With FM Spectroscopy," on Wednesday, September 16, at 4 p.m. in Berkner Hall. He will be introduced by Chemistry Chair Carol Creutz.

The power of this super-high-resolution technique, as Hall will explain, is the simultaneous measurement of the velocities, rotations and vibrational motions of products from the reaction. The details learned can verify or extend the data base of reactions in large computer models of combustion being built elsewhere in the DOE combustion-research program. The information can be used, for example, by combustion engineers in



Gregory Hall

## BSA Awards Tenure to Five BNL Scientists

# Yu-Shin Ding, Chemistry

Five Brookhaven scientists were granted tenure by the BSA Board of Directors, effective August 1. The five scientists are: Jeffrey Coderre, Medical Department; Yu-Shin Ding, Chemistry Department; John Gatley, Medical, Stephen Peggs, Relativistic Heavy Ion Collider Project; and José Rodriguez, Chemistry. The following article on Ding is the second in a series to appear over five issues of the Brookhaven Bulletin, which started August 28 and will discuss the work of each of the new tenure recipients, in alphabetical order.

Yu-Shin Ding (right), a chemist in the Chemistry Department, was recommended for tenure "based on her outstanding creativity in organic synthesis applied to radiotracer development for positron emission tomography [PET], and on the basis of the key role that her development of radiotracers plays in setting fruitful new directions for PET studies of addiction, aging, and drug action," said Chemistry Department Chair Carol Creutz.

PET provides a window into functioning vital organs and the relevant human biochemistry, allowing researchers to measure, for example, regional brain glucose metabolism and brain enzyme concentrations. In a PET study, a subject is injected with a small amount of a short-lived radioactive tracer which binds to specific brain sites. The radiotracer emits positrons, which give rise to energetic photons. These are recorded, and their location and concentration are signaled by a detector to a computer. The computer then translates these data into a vis-

ible form, which is used as a window into the brain.

The chemical challenge in PET work is to incorporate positron-emitting nuclides into the complex organic compounds that can be used as probes for specific biological targets. The short lives of these nuclides — for example, carbon-11 has a half-life of only 20.4 minutes — place very strict limitations on the methods that can be used.

Stated Creutz, "The character and future of the Chemistry Department program in PET are strongly dependent upon the advances in radiotracer chemistry — and that depends on innovative scientists who can drive forward research by the design and synthesis of new radiolabeled molecular reporters. Yu-Shin Ding is such a scientist."

Creutz continued, "Not only is Ding an outstanding synthetic chemist, but her scientific breadth and her interest in biological systems also place her in a unique, invaluable role as a creative (continued on page 2)

their search for maximum fuel efficiency and minimum pollution.

Hall joined BNL in 1987 as an assistant chemist, becoming an associate chemist in 1990, and a chemist in 1992. With Trevor Sears, also of Chemistry, Hall was awarded a Laboratory Directed Research & Development Program grant in 1994 for very low

temperature infrared-laser absorption as a potential analytical tool. He was granted tenure in 1995.

Coffee and cookies will be served in the lobby before the lecture, and refreshments will be offered afterwards. To join the lecturer for dinner at a restaurant off site, call Jean Petterson, Ext. 4302.

—Liz Seubert

# Changes in Cafeteria Operations Reflect Decrease in Flik Subsidy

Starting in mid-September, BNL employees will see a menu of changes awaiting them at the Berkner Hall cafeteria.

First of all, the weekday menu will change: a self-serve buffet station will replace the hot entrée station. In addition, a new pizzeria-style station will be introduced, the grill will feature new charbroiled offerings, and there will be one sandwich station with an expanded menu and two sandwich makers instead of the two separate stations that currently operate.

All these food changes will be accompanied by an average 15-percent increase in food prices and additional self-service, which means that customers will have to remove their food trays themselves after they are finished eating.

Also, the coffee truck will be limited to one stop only, the weekend service will end, and Flik International Corp., the food service contractor, will receive exclusive catering rights to all events hosted at BNL with BSA money, including liquor services.

Finally, Flik's on-site staff will be reduced by up to five people.

These changes are the result of the Lab's decision to move toward a non-subsidized food-service operation.

"Overhead cost reduction is a major element of BNL management's plan to balance the budget with minimum impact on science," said Ron Manning, Manager of the Staff Services Group of the Administrative Support Division (ASD). (See Brookhaven Bulletin, August 28, 1998.)

In a study conducted by Staff Services last year to examine the possibilities of reducing or eliminating BNL's growing food-service subsidy, which is expected to be \$350,000 in fiscal year (FY) 1998, ASD Administrative Manager Ken Mohring reviewed the food-service operations of eight other national laboratories. He found that five of the eight had contractor-managed profit-and-loss operations, whereby the contractor absorbs losses, and the lab and the contractor share any profits.

Thus, in January of this year, BNL had asked Flik to develop an operational plan to reduce the Lab's food-service subsidy to zero, or as close to (continued on page 3)



Photos on this page by Roger Stoutenburgh



# Bring Yourself, Family, Neighbors To the Lab’s First Environmental Fair

If you have ever wanted to explore the Lab's undeveloped acreage and learn about how BNL is central to eastern Long Island's ecosystem, then bring yourself, your family and neighbors to the Lab's first Environmental Fair.

This free event is open to the public and will be held on Saturday, September 19 (not Sunday, October 4, as previously announced), from 10 a.m. to 3 p.m., rain or shine. That day as well, the on-site Upton Forecast Office of the National Weather Service will be holding its open house from 1 p.m. to 5 p.m. (see below).

In addition to taking guided tours and independent nature walks within the Lab's Pine Barrens and along the Peconic River, visitors to the Environmental Fair can learn about the dozens of technologies developed at Brookhaven that are used to clean up the environment. These technologies include a sensor that is used to identify chemicals at a safe distance and a technique developed with W.R. Grace & Company that makes asbestos environmentally benign without diminishing its fireproofing properties.

Numerous other fun, family activities will be offered that day, including a hydroponics workshop and a talk on gardening, face painting, a recycling race, and a kite fly. A tour of the Relativistic Heavy Ion Collider, now under construction, will also be offered.

## Upton Forecast Office Open House 9/19

The Upton Forecast Office of the National Weather Service (NWS) began making official weather predictions for Long Island, New York City, northeastern New Jersey and southern Connecticut in October 1993 from its new, on-site facility. At that time as well, its staff began using a state-of-the-art Doppler weather radar as part of an integrated network of new NWS facilities across the nation.

Before then, the office's staff was located in New York City and employed data from conventional radar and other sources.

Weather-observers who are interested in touring this modern facility and seeing its state-of-the-art radar and other equipment are invited to the Upton Forecast Office's open house on Saturday, September 19, from 1 p.m. to 5 p.m.

Tours will take place inside the facility every 15 minutes. Since it is small, there will be outside activities to supplement the tours. If a hurricane watch or warning is issued, however, the NWS open house will have to be canceled because the Upton weather forecasters will be busy!

# BNL Dance Club Invites Beginners To Join Its 6:30 p.m. Wednesday Classes

Though the majority of the schedule (see last week's Bulletin) is dominated by continuing classes, newcomers to ballroom dance have two opportunities this year to join the BNL Ballroom, Latin & Swing Dance Club.

At the start of series 1 on Wednesday, September 16, beginners are welcome to join the 6:30 p.m. peabody and American tango I class, which continues to level II in series 2; and, at the beginning of series III on Wednesday, January 27, 1999, beginning students are also invited to take the samba and International Viennese waltz I class, which also goes on to level II, but in series 4.

Classes will be held on Wednesdays from September 16 through May 19, 1999, in the North Ballroom of the Brookhaven Center. They will be taught by 1991 U.S. Ballroom Champion Giny Rae and her 1993 Empire State Ballroom Championship partner Peter Scieurca, with assistance from Sean Breaton, an amateur silver and gold National medalist in International Latin.

If a minimum of 40 people sign up for a class, then the cost per person is \$25 for eight weeks of instruction. Lab employees, retirees, on-site contractors, their families, friends and dance partners are invited to join. Not having a partner may not be a problem, as the club will only sign up equal numbers of men and women.

To register before the first class, send a check, payable to the BNL Dance Club, to: Marsha Belford, club president, Bldg. 134.

## Yu-Shin Ding (cont'd.)

bridge for interdisciplinary neuroscience research. She has achieved national and international recognition for accomplishments in both realms, and she is invaluable to BNL."

Ding, who had completed her B.S. in chemistry at National Taiwan University (NTU) in 1979, began graduate work at the State University of New York at Stony Brook (USB) in 1982, where she was first author on two of the six papers and two book chapters that she and her colleagues published on the synthesis and metabolism of insect pheromones.

After earning her USB Ph.D. in organic chemistry in 1987, she joined BNL as a research associate in Chemistry. Appointed to the scientific staff as Assistant Chemist in 1990, she was named Associate Chemist in 1992 and had progressed to Chemist by 1994.

Soon after joining the BNL PET group, Ding began working on radio-labeling with fluorine-18 (F-18) certain organic compounds that could not be labeled at true tracer levels previously. After performing several difficult experiments, she succeeded, and

her methodology has been used by many PET groups since.

During her experiments, she also established a highly efficient way to predict the success of future radio-syntheses on many other substrates without actually conducting them.

Ding used her new method to synthesize a number of F-18-labeled catecholamines, an important class of compounds used for investigating the nervous system. Carrying out a six-step microscale synthesis in under two hours, she obtained tracer levels of F-18-labeled catecholamines in sufficient quantities and purity for *in vivo* studies. This extremely difficult achievement signaled an important breakthrough for PET studies: these F-18-labeled catecholamines could now be administered at true tracer levels so that their pharmacological effects are negligible.

In another study, involving a deuterium isotope effect, she demonstrated how to isolate a single biological process in the living system without tissue sampling or tissue extraction.

Ding also developed a synthesis for a compound called methylphenidate, labeled with carbon-11. Commercially



Roger Stoutenburgh

At the Lab’s Environmental Fair on Saturday, September 19, children will have fun participating in a three-legged recycling race, such as the one pictured. The day-long event, from 10 a.m. to 3 p.m., will feature free family fun, exciting science displays, guided tours of the Lab site, and nature walks.

## Volleyball

### Players Wanted

If you have ever wanted to play in BNL's Volleyball Leagues, but could not find a team, then this year is your year to join the fun. BERA Volleyball has created new opportunities for players by forming a second open division and by reducing the number of women required to play on teams in the three mixed leagues. As a result, more teams can be formed, including one with you on it. For more information, go to [www.vb.bnl.gov](http://www.vb.bnl.gov) or contact Rick Wagener, Ext. 5886 or e-mail [wagener@bnl.gov](mailto:wagener@bnl.gov); or Don Shea, Ext. 2931 or e-mail [dshea@bnl.gov](mailto:dshea@bnl.gov). To be included in a players' pool of interested individuals of all abilities who are not on a team, contact Wagener or Shea.

### Captains' Meeting

Captains are asked to bring their completed players' forms to the first Volleyball captains' meeting on Wednesday, September 16, at noon in Room B, Berkner Hall. The meeting agenda includes a discussion of proposed changes to local rules, which is posted at [www.vb.bnl.gov/proposed](http://www.vb.bnl.gov/proposed). rules.

## Holiday Notes

*In observance of Labor Day, the Lab will be closed on Monday, September 7. As a result, the following schedules will be in effect:*

- **Brookhaven Bulletin** — No Bulletin will be published on Friday, September 11.
- **Credit Union** — The Teachers Federal Credit Union on site will be closed Saturday, September 5, and Monday, September 7. The automatic teller machine in the foyer of Berkner Hall will be open throughout the holiday.
- **Food Service** — The Cafeteria will be open from 9 a.m. to 2 p.m., September 5-7. The Brookhaven Center Club will be closed on Sunday, September 6; it will reopen on September 7, 5 p.m.-9 p.m.
- **Gym & Pool** — The gymnasium and swimming pool will be closed Saturday-Monday, September 5-7. Usual hours will resume on Tuesday, September 8. Beginning Saturday, September 12, the gym, which has been closed on weekends, will be open on Saturdays, 10 a.m.-5 p.m.
- **Omega Leisure Travel Office** — The Omega Leisure Travel Office will be closed Monday and Tuesday, September 7 & 8, reopening on Wednesday, September 9.
- **U.S. Post Office** — There will be no mail delivery and the service window at the Upton Branch of the U.S. Postal Service will be closed on Monday, September 7.

available as Ritalin, a drug used to treat people with attention-deficit hyperactivity disorder, methylphenidate is marketed as a mixture of two mirror-image molecules, *d-threo* and *l-threo* methylphenidate. However, only one form, *d-threo*, is pharmacologically active.

By devising a way to label both forms with carbon-11, Ding was able to show for the first time that only *d-threo* methylphenidate binds to the molecular target in the human brain.

If the pharmacological effects of the drug reside only in the *d-threo* form, then the remaining 50 percent of the weight of the drug — the *l-threo* form — may not contribute to its therapeutic effects, or may affect the active form's behavior or contribute to its side effects. Ding's work made evident the advantages of using only the *d-threo* form.

Another important outcome of this research has been the development of carbon-11-labeled *d-threo* methylphenidate, which is now a core scientific tool in many published PET clinical studies on psychostimulant drug behavior and normal aging.

Ding also sought and received a

National Institutes of Health (NIH) First Independent Research Support & Transition (FIRST) award, 1996-2001, to pursue a completely new area of PET research having strong links to the development of new drugs and to oncology.

Her winning application had described her development of the first radiotracer for visualizing the enzyme, catechol-O-methyltransferase, known as COMT. This enzyme is elevated in certain breast tumors, and it is also an important molecular target in developing drugs to treat Parkinson's disease.

Ding was elected to the Board of Directors of the Radiopharmaceutical Science Council of the Society of Nuclear Medicine and served on a National Institutes on Aging Ad-hoc Program Project Review Committee.

In the last year, she gave over 30 invited lectures and workshops at three different institutions in Taiwan. She has received grants from NIH, DOE, and pharmaceutical companies; authored more than 70 journal articles and book chapters; and holds several patents.

— Liz Seubert



Equipment Demos

Bell Atlantic Mobile will be on site on Wednesday, September 9, 11 a.m.-2:30 p.m. in Berkner Hall, to offer special cellular phone savings on the new corporate plan. A \$18.99 monthly access charge includes many extras. BNL, BSA, and DOE employees who activate this plan in an annual contract and keep it up can choose a free Motorola Profile, or a Noki a 918, or an Audiovox 475, each with a leather case. For more information, call Paula Bohacik, 662-5638.

Davis & Warshow, Inc., will hold a tool show on Tuesday, September 15, 11 a.m.-2 p.m., in Berkner Hall. On display will be heavy-duty tools from Milwaukee Tools; heavy-duty drills from Skil/Bosch Power Tools; anchors from Power Rawl Fasteners; and tools ranging from the smallest tubing cutters to the largest portable threading machine and including cameras for underground pipe inspection from Ridgid Professional Tools Company.

Sprint PCS Wireless Communications will display cellular phone models and pricing plans on Thursday, September 17, 10 a.m.-3 p.m., in Berkner Hall. Monthly rate plans starting at \$30 for 200 minutes include many extras. Drop by to learn about a \$50 cellular phone trade-in offer and a September-only, \$50 rebate on select phone models. For more information, call Allison Clifton, 983-4364.

Arrivals & Departures

Arrivals

Magalie Bruneus ..... Medical  
Andrew R. Cook ..... Chemistry  
Yangang Liu ..... Appl. Science  
Alistair Rogers ..... Appl. Science  
Lu Sun ..... Biology  
John Triolo ..... Instrumentation  
John R. Miller ..... Chemistry  
Andrei Sukhanov ..... Chemistry  
Tomas Jirsak ..... Chemistry

Departures

Carol S. Archer ..... Appl. Science  
Wei Bao ..... Physics  
Marie K. Betzold ..... Admin. Supp. Div.  
Sharon L. Emery ..... Env. Restoration  
Alan V. Kuehner ..... ES&H Services  
Xu Lin ..... RHIC  
Samuel C. Morris ..... Appl. Science  
Kevin D. Wyman ..... Appl. Science

Cafeteria (cont'd.)

zero as possible. ASD Manager Greg Ogeka presented Flik's plan, with some negotiated revisions, to the Integration Council in June. The plan as approved by the Council and described here, will substantially reduce the FY99 BNL subsidy to a net of \$68,000, which equals \$28,000 operating costs plus \$40,000 of equipment maintenance, repair and replacement costs to be picked up by BNL.

Changes Discussed

The good news at the cafeteria is that the weekday menu will be rejuvenated. Flik is having a new pizzeria-style station installed, so BNL employees can enjoy a wide array of pizzeria-

Give Food Next Week  
BNL Honored for Food, Toy Drives

During the week of September 8-11, the monthly BNL Food Drive reminder will be posted at the Lab's main gate, and generous BNLeers will donate canned goods to be picked up on Monday, September 14. Since 1988, BNL has donated more than a quarter of a million pounds of food to needy local residents through Brookhaven Town's INTERFACE Program.

BNL employees have donated regularly to the monthly Food Drive, contributing 22,106 pounds of food in 1997, and 11,946 pounds during the first half of 1998.

They have also been steady contributors to INTERFACE's annual Toy Drive during the holiday season.

Under the aegis of Gregory Ogeka, Director's Office (DO), the BNL Food Drive has been coordinated since 1995 by Rita Kito, DO, and Donna Wadman, Environment, Safety & Health Services Division. The Food Drive was initiated by BNL's former Business Manager Bernard McAlary, now retired from the DO. Carole Kerr, DO, had coordinated the Food Drive until 1995, when she retired.

"It is an honor for Brookhaven Lab to receive this award from Brookhaven Town," Ogeka said. "I'd like to thank all the employees who have made the Food Drive such a success — those who have donated food or cash, and those who have volunteered to shop or to place bins for food collection in their buildings. Also, thanks to the employees who have been generous in donating to the Toy Drive, as they help make holiday time happier for needy children."

To become a volunteer in the Food



Gregory Ogeka, Director's Office, accepts a certificate of appreciation for BNL's participation this year in Brookhaven Town's INTERFACE Program from Brookhaven Town Supervisor Felix Gucci (right). With them is Thomas Williams, Brookhaven Youth Bureau, who helps coordinate the INTERFACE Program, which draws on private and government resources to help provide for the needy in Brookhaven Town.

Drive, call Rita Kito at Ext. 3320.

There are 35 drop-off points for food around the Lab site, but, if there is no food bin in your building, call Kito for the nearest location, or drop off your food donation at the bin in the Upton Post Office Bldg. 179.

If dropping off food at a pick-up area around the Lab is inconvenient, or you have no time to shop, then you can write a personal check to BNL Food Drive, c/o Kito, Bldg. 460.

— Diane Greenberg

Recreation Building  
Closed for Repair

The Recreation Building, Bldg. 317 in the on-site apartment area, is closed for electrical maintenance until further notice.

Call Recreation Supervisor M. Kay Dellimore, Ext. 2873, for answers to questions regarding this matter.

Stockroom Closing

Supply & Materiel (SM) stockrooms will be closed for inventory on Thursday and Friday, September 17 & 18. Make all necessary stock withdrawals before 3 p.m. Wednesday, September 16, to give SM staff sufficient time to prepare. During the inventory, process emergency requirements through John Scharpeger, Ext. 2974.

Diversity Visa Lottery

The Office of Scientific Personnel (OSP) has received information regarding the Diversity Visa Immigrant Program for the year 2000 (DV-2000), which is designed to benefit natives of what are known as low-admission countries.

To be eligible for the program, a foreign national must be a native of a designated country and must also have at least a high-school education or its equivalent, or have worked at least two years in an occupation requiring two years of training or experience.

For the purposes of the DV-2000 program, the following countries are excluded: Canada, Columbia, Dominican Republic, El Salvador, Haiti, India, Jamaica, Mexico, the Philippines, China — excepting Hong Kong — Poland, South Korea, Taiwan, the United Kingdom — excepting Northern Ireland — and its dependent territories, and Vietnam.

Entries for the DV-2000 program must be received between October 1, 1998, and October 31, 1999. For more information, contact Brenda Kirk, OSP, Bldg. 185A, Ext. 5877.

Hospitality Committee

The following events are open to on-site residents, their spouses, and friends. Details are posted in the apartment area laundry, on the door of the Recreation Building, and on the back of the Lollipop House. For more information, call Julie Kim-Zajonz, 929-0405.

Welcome Coffee

Every Tuesday, from 10 a.m. to 11:30 a.m., all are welcome to meet with neighbors and to greet new on-site residents. Call for location information.

Cooking Exchange

The next potluck supper sponsored by the Cooking Exchange will be held on Thursday, September 17, at 5:30 p.m. in the covered barbecue area. Bring a supper dish to share.

Bring-Your-Own BBQ

On Friday, September 25, bring your own meal to barbecue, utensils and a dish to share to the covered barbecue area. The Hospitality Committee will provide charcoal and drinks.

facility on weekends are the Plant Engineering Division and other staff working during weekends.

Consolidating Food Services

Unpredictable catering sales at the Lab have made developing realistic budget projections difficult for Flik. The weekend and coffee-truck operations can only be operated at a loss, according to Flik management.

However, Soguero firmly believes, "If we consolidate the entire operation into one area, then we can attack the problem squarely. The partnership that we have with BNL is going to help us move forward. The Lab has offered us a challenge by choosing for us to remain here. So we intend to succeed."

The revised contract with Flik, which extends through March 2001, provides that BNL will pay Flik a maximum of \$28,000 per year. Flik may, at its option, withdraw from the contract after 60 days' notice to BNL. If Flik exercises this option, it will continue to provide food services on a cost-plus-fee basis until a replacement contractor is found, explained Manning.

Flik International Corp., a regional food service company, replaced Service America Corporation in 1996. Rudieger and Julie Flik started the company in 1971. The company now serves more than 100 accounts throughout the tri-state area.

— Amena Saiyid

BROOKHAVEN  
BULLETIN

Published weekly by the  
Media & Communications Office  
for the employees of  
BROOKHAVEN NATIONAL LABORATORY

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LIZ SEUBERT, Assistant Editor

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style offerings, an improvement over what is currently offered. Flik is also planning to consolidate the sandwich bar, replace the hot entrée station with a hot buffet, and renovate the grill before introducing new grill items. Items from the hot buffet station will be priced by the ounce up to a maximum of \$4.99.

As Flik International District Manager Peter Soguero explained, Flik itself is paying nearly \$12,500 for the pizza station, the grill modifications, and the sandwich-bar consolidation.

Flik has also been given exclusive catering rights to any events that are hosted at the Lab using BSA money, which includes providing all liquor services. "Previously, the Staff Services Group provided the liquor and its own bartenders. Flik made no money on BSA-funded liquor services, but now we can bring our own bartenders and liquor," Soguero explained.

Also, Flik will be allowed to bid for any on-site Lab-business event hosted at BNL that is not paid for with BSA money. After receiving Flik's pricing proposal for non-BSA funded events, hosts may select any caterer.

The downside of the weekday service is that plastic-ware will replace the stoneware and silverware in the dining room, and customers will have to bus their food trays themselves after eating.

All good things must come to an

end, and so it is for the coffee truck that has been doing the rounds of the Lab for some 20-odd years. Starting October, truck service will be limited to the tennis courts from 7:30 to 8:30 every morning. And it will serve breakfast items only.

The coffee-break service in Bldg. 535 has already been eliminated.

Both Mohring and Soguero acknowledge that the coffee truck is popular with many employees, but the money spent in the effort, which includes employing the driver and the person who prepares the food, outweigh the benefits reaped from sales.

The weekend cafeteria service too will end because there is not enough business to support the effort and costs. The number of customers on weekends ranges from 76 to 114 per day, with daily revenue averaging between \$257 and \$376. The average customer count on weekdays is about 1,000.

Some of the facility-users at AGS and NSLS have voiced displeasure with this decision because they use the cafeteria on weekends.

"The users don't have much time to go off site because they come to the Lab for short stints to conduct research and collect data," said John Parise, Chairman of the NSLS User Executive Committee. This user group is conducting a town meeting on September 17 to discuss the problem.

Besides the facility-user groups, the other groups that mostly frequent the

# Walk for Beauty

BNLers are invited to participate as part of a Lab team in the fifth annual Walk for Beauty on Sunday, September 20. The 4-6 kilometer walk starts at 9:30 a.m. at the Stony Brook Post Office, and proceeds benefit breast cancer research that is funded through the Carol M. Baldwin Research Fund, Inc.

The registration fee is \$15 per walker or \$50 in pledges. All forms and money are due to BNL's Health Promotion Specialist Mary Wood, Bldg. 490, by Monday, September 14. Each registered BNL walker will receive a free T-shirt and a certificate of appreciation from Friends of Brookhaven, Inc. On the day of the walk, registered BNLers are asked to arrive before the start time so the BNL walking team can assemble and be given their free T-shirts.

For registration forms, directions, and parking and assembling information, contact Wood, Ext. 5923 or e-mail wood2@bnl.gov, or Jenn O'Connor, Ext. 5922 or e-mail jenn@bnl.gov.

## Blood Drive on 9/9

A one-day blood drive will be held on Wednesday, September 9, from 9:30 a.m. to 3 p.m. in the Brookhaven Center. If you are between the ages of 17 and 76 and in good health, and have not donated blood during the past 56 days, then you are able to donate — so sign up to give the gift of life.

BNL employees, retirees, facility-users, and their family and friends who meet the above criteria are all invited to make appointments now.

To make an appointment, contact BNL Blood Drive Chair Sue Foster by e-mailing her at foster2@bnl.gov or by calling her at Ext. 2888. Your message should include your name, extension, and the time that you prefer to donate that day.

## Quit-Smoking 9/11

A five-session quit-smoking workshop developed by the American Cancer Society and the American Lung Association starts at noon on Friday, September 11. All those interested in kicking the habit by employing behavior modification and positive reinforcement techniques are invited to attend.

The fee for employees who have not attended a previous on-site stop-smoking workshop is \$10; the workshop is free for those who have participated previously.

For more information and to register, call Health Promotion Specialist Mary Wood, Ext. 5923.

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 JOBLINE, Ext. 7744 (344-7744), for a complete list of all job openings; use a TDD system to access job information by calling (516) 344-6018; or access current job openings on the World Wide Web at <http://www.bnl.gov/JOBS/jobs.html>.

*The following vacancies are exempt from the Director's hiring freeze.*

**SCIENTIFIC RECRUITMENT** - Doctorate usually required. Send C.V. to M. Kipperman, Bldg. 185.

MK8000. POSTDOCTORAL RESEARCH ASSOCIATE - trained in chemistry, with experience in organometallic and/or inorganic chemistry, and in handling

air-sensitive compounds. Experience with NMR spectroscopy, organometallic synthetic procedures, kinetic and mechanistic studies, photochemistry, and catalytic reactions is preferred. Collaborative research between the Photochemistry/Radiation Chemistry Group and the Homogeneous Catalysis Group will be encouraged, including new studies in aqueous organometallic chemistry. Under the direction of M. Bullock, Chemistry Department.

MK7713. POSTDOCTORAL RESEARCH ASSOCIATE - experienced in the development and commissioning of multi-GeV polarized-proton beam acceleration. Will participate in the design, installation, construction, and commissioning of polarized-proton beam acceleration capabilities at the Alternating Gradient Synchrotron and RHIC Project. Requires a Ph.D. in experimental accelerator physics. Under the direction of T. Roser, Alternating Gradient Synchrotron Department.

MK7809. SCIENTIST - experienced in macromolecular crystallography, to operate and continue to develop beam line X25 research facility at the National Synchrotron Light Source. Will supervise technician, and have time for independent or collaborative research. Requirements include: Ph.D. in physics, chemistry or other discipline related to crystallography; and extensive experience in macromolecular crystallography and use of software for macromolecular crystallography, especially software for data collection and reduction. Must be familiar with synchrotron x-ray research and instrumentation, and have good teaching skills. Experience in mechanical/electronic experimentation (both design and construction of apparatus), writing software and maintaining operating systems desirable. Work will be in collaboration with L. Berman and M. Capel, under the direction of R.M. Sweet, Biology Department.

**OPEN RECRUITMENT** - Opportunities for Laboratory employees and outside candidates.

DD8026. ELECTRICIAN A POSITIONS - (temporary; reposting) - Under minimum supervision and in accordance with the National Electrical Code or as otherwise directed, lays out, constructs, installs, maintains, repairs, and operates 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.

DD7715. ENGINEERING POSITION - (term appointment) Requires an MSEE with a strong background in physics. Significant experience in the development and design of one or more types of instrumentation used at a high-energy particle accelerator is highly desirable. This instrumentation includes beam-loss monitors such as scintillator-photo multipliers and ion chambers, beam-current transformers, beam-profile monitors and beam-position monitors. The ability to work independently in the design and development of this instrumentation through production, installation and commissioning is essential. Familiarity with common engineering design software such as AutoCAD, LabView, Pspice and various schematic capture programs is desirable. Alternating Gradient Synchrotron Department.

MK7716. PROGRAMMER/ANALYST POSITION - (term appointment) Requires an MS in computer science, electrical engineering or related field, or equivalent; several years C and real-time programming; familiarity with VME hardware, writing-device drivers, interfacing with hardware, and configuration of CPU boards. Knowledge of Vxworks and Epics beneficial. Will be part of a team that will design and implement a control system using Epics for a large project. Will work with engineers, programmers and physicists to define and implement the requirements. Alternating Gradient Synchrotron Department.

NS8101. PROJECT MANAGER POSITION - Requires a bachelor's degree in engineering or equivalent, and substantial experience in project management and staff management. Will assist the Manager, Office of Project Management & Planning Support, in the day-to-day operations, providing project-management support for high-priority projects and being responsible for the delivery of the BSA Management Plan. Will also provide project-management support for BSA initiatives and training support. Office of Project Management & Planning Support, Director's Office.

NS8102. PROJECT PLANNING POSITION - Requires a bachelor's degree in engineering or computer science or equivalent, and substantial experience in project management and cost estimating/scheduling, expertise in project scheduling software (MS Project, Primavera), and knowledge of MIS interface (Peoplesoft), procurement and Web-based interfaces. Will be responsible for developing and interpreting earned value criteria, developing appropriate project controls and providing project management support for projects as required. Office of Project Management & Planning Support, Director's Office.

NS8104. PROJECT MANAGER POSITION - Requires a bachelor's degree in engineering or related field or equivalent, substantial experience in project management and controls combined with a strong computer background, including the following: computer-aided project management tools (MS Project, Primavera P3), Internet protocols and HTML, computer networking hardware/software (LAN, WAN technologies), and network security. Experience with ES&H requirements and management, and government design reviews and technical audits desired. Will be responsible for establishing and maintaining project-management certifications, providing project-management training support, and coordinating activities associated with implementation and management of a standards-based management system project, including interfaces with Business Information Systems and the Division of Contracts & Procurement. Office of Project Management & Planning Support, Director's Office.