BROCHHARD BULLETIN Vol. 52 - No. 30 BROCKHAVEN NATIONAL LABORATORY

Dick Setlow Steps Down as Associate Director, Life Sciences; Returns to Research in BNL's Biology, Medical Departments

After 12 years as Associate Director and two years as Acting Associate Director of Life Sciences, as well as seven years as Chairman of the Biology Department during his 24 years at BNL, Richard (Dick) Setlow stepped down from the Directorship on July 1. He will remain at BNL as Senior Biophysicist in the Biology and Medical Departments.

^{*}Dick has made many discoveries relating to the process of DNA repair in cells, and built research groups in this field at both Oak Ridge National Laboratory [ORNL] and BNL," wrote Laboratory Director John Marburger in his announcement of Setlow's stepping down. "We owe much of the vitality and productivity of our life sciences here to his leadership. On behalf of the Laboratory, I thank Dick for his extraordinary service to BNL, as well as to science."

Said Setlow, "Doing fundamental science is not only interesting, intriguing, and fun, but has much unforeseen utility. Thus, DNA repair, discovered in the responses of bacteria to ultraviolet [UV] radiation in 1964, was called, by the journal *Science*, the 'Molecule of the Year' in 1994. We now know many different types of repair systems and that repair defects increase human susceptibility to skin cancer, colon cancer, breast cancer and others. I only regret that there are not enough hours in the day for me to do both science and administration. So — back to science."

After receiving an A.B. degree from Swarthmore College in 1941, Setlow earned his Ph.D. in physics from Yale University in 1947. He taught physics and biophysics at Yale from 1941 to 1961 and studied the quantitative direct effects of ionizing and UV radiation on proteins and nucleic acids.

In 1961, Setlow moved to ORNL to do full-time research, where he and coworkers were the first to demonstrate that UV light induces structural defects in DNA, the substance that is the molecular basis of hereditary, that can cause biological damage. He then showed that bacterial cells can repair defects in DNA, by a process called nucleotide excision repair.

This discovery showed for the first time that the genetic materiel is subject to biochemical turnover, a notion disputed then by most geneticists. This ground-breaking research stimulated a new interest in the field, since certain genetic diseases stem from inherited deficiencies in DNA repair.



Dick Setlow

Joining the staff of BNL's Biology Department in 1974, Setlow studied UV damage to DNA so as to understand effects on skin that might be due to stratospheric ozone depletion by supersonic planes or chlorofluorocarbons. With his team, he found that the (continued on page 2)

Hank Grahn Retires Today as BSA Chief Financial Officer, BNL Assistant Director, Finance & Administration

Having served BNL for almost 40 years, helped the Lab through the transition between AUI and BSA, and worked with BSA to establish a framework for future fiscal years, BNL's Assistant Laboratory Director for Finance and Administration, Henry (Hank) Grahn, who is also BSA's Chief Financial Officer, is retiring today.

"Hank's long experience in the various budget and administrative offices in the Lab, combined with an energetic 'can do' attitude, has helped this Laboratory through many difficult episodes," notes Laboratory Director John Marburger. "Hank accepted many responsibilities and gave his time freely to help make the Lab function smoothly. The entire Laboratory is indebted to Hank for his willingness to help BNL through the most administratively difficult months in its 50year history."

With his retirement home in Spring Hill, Florida, completed one year ago this month, Grahn could have left the Lab 12 months ago, at a time when BNL's future was as uncertain as who its next management and operating contractor would be. However, Grahn explains, "I decided to stay on, to help lead the Lab through the difficult months, to help mitigate the financial and administrative problems that I knew were ahead."

But now, having led the Lab's tran-



Searches Are On, Interim Assignments Are Made

With Richard Setlow's return to research in the Biology and Medical Departments as of July 1 (see story, top of page), a search, led by Deputy Director for Science & Technology Peter Paul, has been on for a new BNL Associate Director for Life Sciences.

In the interim, Special Assistant to the Director Peter Bond has assumed Setlow's former administrative responsibility for the Institutional Biosafety Committee and the Institutional Animal Care & Use Committee, and Bond now serves as the point of contact for human studies at BNL.

Another search, this one headed by Deputy Director for Operations Thomas Sheridan, is ongoing for a new Associate Director for Finance & Administration, given Henry Grahn's retirement from the Lab at the end of today (see story, middle of page). In the meantime, Greg Ogeka, who is Manager of the Administrative Support Division (ASD), is Interim Assistant Director for Finance & Administration.

Assisting Ogeka in this role are two employees on temporary assignment: Fiscal Officer Mark Israel of ASD's Fiscal Group, and Kevin Fox, a senior contracts specialist in the Contracts & Procurement Division.

In Ogeka's absence from ASD, Lance Warren, Manager of Operations & Maintenance of the Plant Engineering Division, is serving as Interim ASD Manager. And, while Israel is on assignment, Deputy Fiscal Officer Susan Perino is overseeing the Fiscal Group.

Hank Grahn

sition team and helped introduce the new people to the Lab's financial and administrative operations, and having worked through the Lab's terrible budget problems this fiscal year and worked with BSA to return both a larger percentage and a larger dollar amount of its fee to BNL, "I accomplished what I wanted to do," says Grahn. "I still have my health and I feel great. Marie, my wife of 41 years who works as a senior administrative secretary in the Physics Department, has been here 21 years and she's ready to go, so it is time that we retire." In honor of Grahn's retirement, the BSA Board of Directors issued a resolution, directing Grahn "to enjoy his retirement to the fullest extent possible, ignoring and dismissing all obstacles that may impede such enjoyment."

Though the Grahns are anticipating enjoying a lot of time on the golf course, Hank Grahn will still keep his hand in BNL's financial and administrative affairs: because "the Laboratory simply cannot let a valuable asset slip away," Marburger has invited Grahn to continue his association with the Lab as a consultant, an invitation (continued on page 2)

Stony Brook Resident Wins BWIS 1998 Chasman Scholarship

Roseanna Ryan of Stony Brook has won the 1998 Renate W. Chasman Scholarship for Women.

The \$2,000 scholarship is awarded annually by Brookhaven Women in Science (BWIS), a not-for-profit organization formed to promote the advancement of women in the scientific, engineering, and technical professions.

This year's award was presented to Ryan at the July 21st BWIS Summer **Reception by Editor-in-Chief Martin** Blume of the American Physical Society, who is a senior physicist in BNL's Physics Department and was the guest speaker at the event.

As a colleague and friend of the late Renate Chasman, the world-renowned accelerator physicist for whom the scholarship is named, Blume recalled highlights of Chasman's career at BNL, where she was chief theorist in the groups that designed and built the 200-million-electron-volt linear accelerator injector for the Alternating Gradient Synchrotron.

As Blume recounted, Chasman is most noted for her unique design, made in collaboration with BNL's late Ken Green, of an electron storage ring optimized for synchrotron radiation production. The Chasman-Green lattice. as it is called, is the basis for the two storage rings at the National Synchrotron Light Source and other synchrotrons around the world.

The scholarship in her memory is intended to encourage women to pursue careers in the sciences, engineering or mathematics, and its recipients

have been Long Island women whose college education had been interrupted, but who had returned to school at least part time to study for a degree.

This years's winner, Roseanna Ryan, after graduating from Centereach High School in 1984, attended

Suffolk County Community College (SCC) for two semesters, but her education was interrupted due to family concerns.

Having discontinued her studies, she took a secretarial position at a speech pathologists's office. In 1988, she worked as a teller at North Fork Bank, and, in 1992, she took a clerical position at University Hospital at Stony Brook, where she is still employed part-time.

further delayed Ryan's education.

Ryan married Martin Ryan, a carpenter, in 1989, and they had two children, born in 1991 and 1993. Caring for her children while they were infants and young toddlers

Hank Grahn

(cont'd.)

that Grahn has accepted. "I am delighted that you have agreed to this arrangement, and I look forward to a long relationship with you in your new capacity," Marburger commented.

"As with Nick Samios before him and with George Vineyard before him, Jack Marburger gave me all the freedom and authority to do my job and do it well," says Grahn. "In turn, I give my sincere thank you to the managers of the organizational units reporting to me — Bill Foyt, Mary Faith Healey, Dick Melucci, Greg Ogeka, and Mary White - for their professionalism in running their organizations over the years. And, to the people in those divisions and my office staff, I thank you for your support because, if I have shone at all over my years at BNL, then it was only because I basked in the glow of the good people who worked for me.'

Henry Grahn began his four-decade career on November 3, 1958, as an accounts-payable clerk. "The job, as a weekly-wage accounting clerk, paid only \$1 more per week than I was making elsewhere, but I decided to take the position anyway because I thought that I might have a better future at the Lab," explains Grahn. In 1962, he moved from BNL's payroll to AUI's, as a junior auditor in the on-site Internal Audit Group - a position for which he never applied. "After I applied for my first job at BNL, I never again applied for a position at the Lab: all eight promotions that I received were positions that were offered to me," adds Grahn. He returned to the

Lab's staff in 1965, when he became an assistant administrator within the Physics Department, and, in 1968, he was promoted to the Administrative Officer for Physics. "When I was in the Physics Department, I had repeatedly to threaten to shut down the account of one particular high-energy physics group leader — never realizing that Nick Samios would one day be my boss!" recalls Grahn.

The next year, he became the Lab's Budget Officer. Then, in 1976, Grahn was named Assistant Director for Financial Management and, in 1987, he was named Associate Director for Administration, the position in which he served until BSA became the Lab's contractor this March.

While an Associate Director, Grahn chaired the Lab committee that led to the construction and successful operation of BNL's Child Development Center, the first such center built at a national lab with DOE funds. "As a father of four and grandfather of nine, I'm proud of that fact," says Grahn.

"BNL is a great institution, but, most importantly, the Lab is made up of really good people, both scientific and support staff, who care. It is my hope that, by bringing BNL's staff together and by uniting it with the surrounding community, the Lab will continue to succeed and build upon its glorious past," concludes Grahn.

In 1995, Ryan enrolled part time at SCC, becoming a full-time student in 1996. She was graduated this spring with an associate's degree in liberal arts with an emphasis in math.

To earn a bachelor's degree, she will matriculate this fall in the ap-



'My goal is to be an environmental scientist," said Ryan. "I'm not sure of the specific field that I would enter, but I'd like to help keep the environment safe and clean for future generations. I appreciate the scholarship from BWIS, as it will help me fulfill my educational and career goals.'

Dick Setlow

(cont'd.)

capacity of cells to repair DNA after UV radiation was related to the lifespan of the species tested.

In 1988, Setlow was one of two winners of the Enrico Fermi Award. which is the highest scientific award given by the U.S. Department of Energy, recognizing exceptional and altogether outstanding scientific and technical achievement in the development, use, or control of atomic energy.

Setlow was honored: "For his pioneering and far-reaching contributions to the fields of radiation biophysics and molecular biology, beginning with the discovery and conceptualization of the processes of DNA repair that have had an impact on research in genetics, recombination, mutation, and carcinogenesis.'

March Into May **Final Results Are In**

BNL was one of ten organizations nationwide selected to participate in a ten-week physical activity program called March Into May. Sponsored by the Centers for Disease Control and the National Coalition for Promoting Physical Activity, the program ran from March until May, and it was designed to help everyone, regardless of their physical-fitness and activity levels at the start.

After setting personal goals for regular activity, participants tracked their progress using a daily activity log. As recorded within the log, every ten minutes of exercise was worth one point.

At BNL, of the 360 employees who expressed interest in the program, 336 returned the initial survey, in which participants disclosed their current fitness and activity levels, and set their personal goals.

Of the 336 participants, 251 - 75percent — reached their personal goals, and 288 — 86 percent — earned at least 100 points by the end of the ten weeks. The points ranged from 47.5 to 675, with 46 participants scoring over 300 points.

As a result of being involved in March Into May, participants reported positive changes in life-style and the breaking of bad habits: to wit, 133 reported increased energy, 127 increased weight control, 114 increased ability to handle stress, 89 increased daily consumption of fruits and vegetables, 77 decreased daily intake of dietary fats, and 9 decreased or stopped smoking.

Says Mary Wood, who is the Health Promotion Specialist in the Occupational Medicine Clinic who coordinated employees' participation in this national program, "Congratulations to all those who participated in March Into May. We are very pleased with the results, and wish everyone good luck in maintaining their new and improved good habits."

For further information and resources on maintaining good health habits, contact Wood, Ext. 5923.

Award, Setlow's many honors include: the Finsen Medal in 1980, presented at the Eighth International Congress on Photobiology; honorary Doctor of Science and Doctor of Medicine degrees from York University, Canada, in 1985, and the University of Essen, Germany, in 1993, respectively; and being elected a Fellow of the American Association for the Advancement of Science in 1988.

Setlow has served as President of the Biophysical Society and of the Comité International de Photobiologie. Among his many affiliations with professional organizations, he has been a member of the National Academy of Sciences since 1973, and, in 1975, he was elected a Fellow of the American Academy of Arts and Sciences. He is the author or coauthor of more than 250 scientific papers. Setlow's future plans are already under way: Now that he has more time for research, he is using his sensitive hybrid-fish system to focus again on melanoma induction by chronic sunlight exposure and induction of other tumors by chemicals. He hopes to collaborate with Japanese colleagues to use medaka fish as a model system for evaluating the effects of heavy, energetic charged particles, such as those found in cosmic rays, in producing mutations in sperm. Such experiments, to be carried out at the Alternating Gradient Synchrotron, will supply essential information on the genetic effects of space travel. As Setlow says, "Fish stories are what makes Long Island great!"



Two new BNL retirees: Marie Grahn and Hank Grahn, at his July 23rd retirement party, which was attended by 130 people.



Much of Setlow's research in the 1990s focused on the cause of skin cancer.

In 1993, he led a team to find that the most serious form of skin cancer malignant melanoma — is induced by all wavelengths of the sun's UV rays.

He based this conclusion on experiments he had performed using a fish model, a hybrid cross of platyfish and swordtails of known genetic composition that, like humans, is susceptible to UV-induced melanoma.

This surprising discovery contradicts the long-held belief that only short UV wavelengths - in the 280 to 320 nanometer range — are potentially harmful.

In addition to his 1988 Fermi

Free Shuttle Service For Students, Visitors

Students and visitors living on site are reminded that the Lab provides complimentary shuttle service between 12:30 and 4:30 p.m. on the following Saturdays to local attractions: Aug. 1 Port Jefferson Village

Aug. 1Fort Senerson VinageAug. 8Tanger Mall, Aquarium,
Splish SplashAug. 15Smith Haven MallAug. 22Port Jefferson Village

This schedule is subject to change due to the weather. Passengers will be picked up and dropped off in the Bell Avenue parking lot of Fleming House, Bldg. 180. To reserve space on the shuttle, call Juanita Beatty, Ext. 2535.

BERA Bus to Yankees

New York Yankee Game, Friday, August 28, \$29 per person: BERA is now offering bus and admission tickets to the 7:30 p.m. New York Yankee game against the Seattle Mariners. The bus will leave the Brookhaven Center promptly at 4:30 p.m. be there no later than 4:15 p.m. — to arrive at Yankee Stadium in time for the game. And if you've always wanted to be in the big time, then you can start by keeping your eye on the scoreboard, where BERA/Brookhaven Laboratory will be announced! After the game, the bus will return to BNL at approximately 10:30 p.m.

Tickets will be on sale, first-come, first-served, at the BERA Sales Office in Berkner Hall, Tuesday-Friday, 9 a.m. to 1:30 p.m. For more information, call Andrea Dehler, Ext. 3347, or M. Kay Dellimore, Ext. 2873.

Midnight Madness Trip: Wait List for Second Bus

So many mad, midnight people have signed up for the Saturday, August 22, art-and-flowers bus trip sponsored by the BERA Art Society to the Brandywine Valley Museum and famed Longwood Gardens, with Andy Wyeth paintings and an evening flamenco (*Olé*) concert as added enticement, that the bus is more than full.

However, a waiting list is now long enough that, if several more people express interest in the excursion, it may be possible to run a second bus.

The price of the luxury-bus-withbathroom, including driver's tip, is \$27; Longwood Garden entrance is \$10; Brandywine Museum is \$4 or \$2.50 for seniors.

For more information, call Liz Seubert, Ext. 2346, or 286-8563, or e-mail lseubert@bnl.gov.

Arrivals & Departures

Arrivals Pobort P. Bakor

1998 Goldhaber Prize — Two Awarded



Two outstanding graduate students from the **State University** of New York at Stony Brook (USB) have won this year's Gertrude S. Goldhaber Prize: They are Mary Josephine Bellanca and Shan-Ho Tsai. At a ceremony organized by Brookhaven Women in Science (BWIS), Bellanca (far left) received her award from former BNL Director Maurice Goldhaber (left), husband of the late Gertrude Scharff Goldhaber. Tsai was unable to attend the awards cer-

emony, since she had begun work in a postdoctoral position at the University of Georgia. Administered by BWIS, the \$500 prize was first awarded in 1992 in honor of the late Gertrude Scharff-Goldhaber, the renowned nuclear physicist who was BNL's first woman Ph.D. The prize recognizes substantial promise and accomplishment by women graduate students in physics who are either enrolled at USB or are performing thesis research at Brookhaven Lab. The ceremony included an introduction of the award winners by two physics professors from USB: Robert Shrock, who had nominated Tsai for the award, and Harold Metcalf, who had nominated Bellanca. Bellanca, who expects to earn her Ph.D. in August, gave a seminar entitled "Rabbits, Cats and Other Quantum Mechanical Beasts: One-Dimensional Laser Cooling in the Quantum Domain in Helium." Tsai's poster, "Studies of Ground State Entropy in Potts Antiferromagnets," was displayed. A reception followed the seminar and awards presentation. — Photo by Roger Stoutenburgh

Attn. All NYS License Holders: Notarized Child-Support Obligation Certification Is Now Required

New York State (NYS) now requires every applicant for a license, certificate, permit, etc. or renewal thereof to certify, as of the date of filing the application, that he or she is or is not under an obligation to pay child support. State law further requires that, if the applicant is under such an obligation, that applicant certifies how the child-support payments are made, whether or not he or she is in arrears, etc.

The law goes on to warn those who are four or more months in arrears in child support or who have failed to comply with a summons, subpoena or warrant relating to paternity or child support that they may be subject to suspension of their NYS licenses. Further, "the intentional submission of false written statements for the purpose of frustrating or defeating the lawful enforcement of support obligations is punishable" under NYS penal law.

Therefore, this law affects everyone on site who has a driver's license and all those who have licenses and/or certifications issued by the State that pertain to their jobs, such as asbestos certification, water-plant operator's licenses, and pesticide applicators permits.

Mailed reminders for renewals for NYS licenses come with the "Appendix to a License Application," which is the official form on which license holders must certify their child-support obligations. This form must be notarized by a notary public (see accompanying list, right).

Slogans Due August 14

If you can think of a memorable phrase that captures the Lab's essence, then submit your idea for a BNL slogan to: Slogan Contest, Brookhaven Bulletin, Bldg. 134.

Entries are due by Friday, August 14, and may be submitted by BNL, BSA and DOE employees and retirees, and on-site contractors.

To entice you to think of a catching phrase, the person submitting the winning entry will be awarded a \$100 American Express gift check. Regardless of the quality of their entries, everyone who submits a slogan suggestion will be eligible for a drawing for a \$50 dinner for two at the restaurant of their choice.

The Lab's management, however, reserves the right not to adopt any of the finalists as BNL's official slogan, if none is appropriate in its and/or the public's mind.

Expanded Food Service

The Staff Services Section of the Administrative Services Division announces two improvements to food services offered on site.

The first change is a trial expansion of weekend food service: effective Saturday, August 1, for a one-month trial, the cafeteria in Berkner Hall will offer meal service on Saturdays and Sundays from 7:30 a.m. to 1 p.m.

The second change is that, for the convenience of employees coming to work on weekday mornings, the coffee truck is now offering service from 7:45 to 8:15 a.m. Monday through Friday in the parking lot by the tennis courts.

Call Ken Mohring, Ext. 2715, if you have questions about the expanded food service.

Notaries Public

The following are known to be notaries public on site:

	Ext.	Bldg.	
Alternating Gradient Synchrotron			
Penny Lo Presti	2625	911	
Chemistry Department			
Diane Hatton	5073	555	
Contracts & Procurement Division			
Roseann Callister	3142	355	
Mary-Faith Healey	3179	355	
Department of Advance	edTec	hnology	
Susan Carlsen	7647	197	
Cheryl Conrad	2272	130	
Donna DeCaro	2380	475	
Department of Applied Science			
Patricia Fox	2939	179	
Ellen Fredrickson	2816	179	
Director's Office			
Ruth Ann Lutz	7774	460	
Lois Marascia	8600	460	
DOE Brookhaven Gr	oup		
Irene Atney-Yurdin	3440	464	
Timothy Drawbridge	3436	464	
Joan Shands	3435	464	

NUDELL F. DAREL	AG
John R. Bohnenblusch	AGS
Frank S. Naase	AGS
Departures	
Gerhard Redelberger Cent. S	hop
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If this form is not included with the license application or renewal, then the State cannot process the license paperwork, but can only return it to the person applying or renewing.

Service Awards

The following employees celebrated service anniversaries during July:

William M. Bone Cent. Shops Thomas A. Butcher App. Science Youssef Farah RHIC John Flannigan Financial Services Peter F. Ingrassia AGS Anthony J. Kalisak CCD Paul A. Kessler CCD James A. Kierstead ... Instrumentation Rosalie Lawrence ... Financial Services Lois I. Marascia Director's Office Philip C. Pape CCD Glenda G. Radich Admin. Support Gerhard M. Redelberger .. Cent. Shops William F. Sandhoff RHIC Jack R. Tallent NSLS Kuo-Chen Wu RHIC

10 Years

Kerry W. Botts Plant Eng. Cyndy A. Chisare Info. Services Joseph A. De Cicco AGS Allen K. Jones Waste Management Jeffrey L. Rothman NSLS Joseph Rubino Info. Services Janet P. Soper Admin. Support.

Human Resources Division

M. Kay Dellimore 2873 185 Donna Dowling 2754 185 Joyce Wund 7516 185 **Internal Audit Office** Frank Federmann 2482 134 Legal Office Michael Goldman 3324 460 Carol Joyce 3325 460 **Medical Department Darcy Mallon** 3362 490 **Office** of Educational Programs Renée Flack 3316 438 **Reactor Division Deborah Doyle** 5916 491 **Relativistic Heavy Ion Collider** Melanie Covitz 5141 1005 **Bonnie Sherwood** 4901 1005

Dosimetry badges will be changed today, Friday, July 31. Please place your badge in its assigned rack space before leaving work today.

Free Summer Sunday Tours Continue Through August 31st HFBR: What's Under the Dome? Find Out This Sunday!

The great dome (pictured below) of the High Flux Beam Reactor (HFBR) is so well-known around the Lab that everyone recognizes it, even if they don't know what goes on under that dome.

This Sunday, however, all are invited to learn what is under that dome,

when the HFBR is the scientific machine featured in a mini-tour offered as part of the Lab's free Summer Sundays tours.

Right now, the HFBR is not operating, pending a decision by the U.S. Energy Secretary on its future. During the Summer Sundays mini-tour, HFBR operations

staff will explain how they maintain the machine and what happened when it was operating.

Scientists who did research on the HFBR's experimental floor (right) will talk about some of the ground-breaking discoveries in medicine and materials science that have been made there.

This research

includes the development of, for example: a form of the element thallium that is now used for heart-stress tests all over the world; a form of tin that has produced promising results when used to treat bone-cancer pain; and methods for dissolving blood clots, as well as new discoveries about plastics,

detergents and magnets.

In addition, as is offered every Sunday of this season's Summer Sundays, Lab tourists can take a bus tour of the site and, in Berkner Hall, see the fascinating Whiz Bang Science Show.

Fun for children of all ages, this show is a lively, interactive demonstration of basic scientific principles, and it is presented at 10:30 a.m., noon, 1:30 p.m., and 3 p.m.

Organized by BNL's Museum Programs on Sundays through August 31st, Summer Sunday tours are free and open to all, and are offered from 10 a.m. to 5 p.m., but visitors must arrive before 3 p.m.

Placement Notices

The Lab's placement policy is to select the bestqualified 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

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.

MK7646. POSTDOCTORAL RESEARCH ASSOCI-ATE/ASSISTANT PHYSICIST - in a group involved in an on-going study of rare K decays at the Alternating Gradient Synchrotron. Will be responsible for maintaining the present E787 data-acquisition for future experiments. Requirements include a Ph.D. in experimental particle or nuclear physics, experience with data acquisition and triggering electronics, and knowledge of real-time operating systems and network architecture. Knowledge of VME and/or Fastbus protocols, Vxworks, familiarity with UNIX operating system, and experience in electronic design and data analysis preferred. Under the direction of L. Littenberg, Physics Department.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees.

NS7770. OFFICE SERVICES POSITION - (term appointment) Requires experience with WordPerfect 6.1 or 7.0, or Microsoft Word, a working knowledge of IPAP and JCARS, experience with credit-card processing, and the ability to work overtime, if necessary. CCATS knowledge and a working understanding of any hotel-type reservation system is desirable. Will take reservations for Lab housing and input them into automated housing system. Will take payments, handle money, and coordinate housekeeping and maintenance services in the dormitories. Housing Office, Administrative Support Division

ment) Requires several years' experience in electronic assembly and technical background in reading and working from electronics drawings and schematics. Must be proficient in fine-pitch surface-mount PCB assembly, using pick-and-place machines; and must be able to operate conveyorized reflow ovens. Knowledge of bonding techniques for integrated circuits, BGA, and hybrid circuits is also required. Responsibilities will include electrical and mechanical assembly of prototype designs, specific equipment, and laboratory instruments. Will work performing multiple tasks in a user-oriented facility. Instrumentation Division

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

DD7701. TECHNICAL POSITION - (term appointment, reposting) Requires an AAS degree in electronic technology or equivalent, and experience in electronic circuits and electronic instrumentation, including the use of oscilloscopes, digital voltmeters and other test equipment. Duties will include assembling, testing, calibrating and troubleshooting analog and digital electronic circuits and systems. Programmable logic controller (PLC) and/or high vacuum instrumentation experience is a plus. Must have strong construction skills, and the ability to work from electronic schematics, rough sketches and verbal instructions. Alternating Gradient Synchrotron Department.

DD4774. TECHNICAL POSITION - (reposting) Requires an AAS degree in electronic technology, BSET preferred, or significant relevant experience with highvoltage power supplies and/or radio frequency (rf) electronics. Will assemble, test, and troubleshoot electronic circuits. Must be able to work from schematics, sketches, and verbal instructions. May be required to work call-in hours as needed. Alternating Gradient Synchrotron Department.

DD7487. TECHNICAL POSITION - (term appoint-