

BNL's MRI Team Initiates Study of Multiple Sclerosis

The search for clues about multiple sclerosis (MS) — a chronic, often disabling disease of the brain and spinal cord — got a significant boost when the National Multiple Sclerosis Society (NMSS) awarded a \$613,687 grant to BNL Chemist William Rooney for a three-year study using Brookhaven's powerful magnetic resonance imaging (MRI) scanner.

The grant was formally announced at a Laboratory ceremony on Thursday, September 28, attended by representatives of the Long Island chapter of the NMSS, Laboratory Director John Marburger, Rooney, and other members of BNL's Chemistry and Medical Departments, including the new Medical Department Chair, Linda Chang (see story, below).

"With Brookhaven's high-field magnetic scanner, we'll be able to detect quantitative changes in the brain at an earlier stage and hope to learn more about the disease process," Rooney said.

More than twice as powerful as a typical hospital scanner, BNL's MRI machine will allow scientists to search for subtle changes in blood vessels that precede MS disease activity. Understanding these changes could lead to more effective diagnosis and treatment.

"We are extremely fortunate, thanks to the Department of Energy, to have the equipment to carry out this research," said Marburger, "and grateful to the NMSS for the opportunity to use this powerful tool in the search for greater understanding of this devastating disease."

Multiple Scars

MS is characterized by scar-like lesions in the brain and spinal cord. The disease can lead to a range of symptoms from mild numbness to severe paralysis or loss of vision. Each year, approximately ten thousand new cases — about one an hour — are diagnosed, mostly among people between the ages of 20 and 40.

Scientists believe that an early step in lesion formation is an influx of water into the brain via leaky cerebral blood vessels. When that happens, the body's immune cells attack the insulation surrounding nerve cells, leaving them less able to transmit electrical signals. The leaky blood vessels may reseal, but the multiple scars, for which the disease is named, remain.

Says Rooney, "The question we want to ask is, 'Is there anything different about this tissue that we can detect before the lesion appears' "

Study outline

The current study will make detailed measurements of water content across all areas of the brain in MS patients and control subjects. Earlier studies have shown increased water in the brains of MS patients compared to normal controls and in brain tissue that goes on to develop MS lesions compared to brain tissue that doesn't.

"We'll be looking for the microvascular changes that may lead to this large and transient influx of water," Rooney says.

The MRI team — which, in addition to Rooney, includes Frank Telang and Margaret Taneus of the Medical Department and Charles Springer of Chemistry — will first inject study subjects with a paramagnetic contrast agent which interacts with water in a way that makes the water more visible and quantifiable by the scanner. By making multiple scans over a few hours, the scientists will follow how the contrast agent — and therefore also fluid — is transported out of

(continued on page 3)



Laboratory Director John Marburger and Chemistry's Bill Rooney accept a \$613,687 grant from Johanna Biederman, President of the Long Island Chapter of the National Multiple Sclerosis Society.

Roger Stouenburgh Oct-10-10-00

All-Hands Meeting Held by Director

BNL Director John Marburger opened his all-hands meeting on October 2 by acknowledging, "This is a time of tremendous change" for the Laboratory.

In an hour-long talk in Berkner Hall, Marburger covered senior management changes, science landmarks in fiscal year 2000, the FY01 budget, and plans for the future. He also spoke directly about morale.

Management Changes

Marburger expressed regret about losing Ken Brog and Bob D'Angio. Brog, who served as Assistant Laboratory Director for Environment, Safety, Health & Quality, is returning to Battelle, while D'Angio, Director of Human Resources, is taking a position at the National Radio Astronomy

Observatory in Virginia (see story page 3).

Bill Hempfling will serve as the interim Human Resources Director while a search is made for a permanent successor. Thomas Sheridan, Deputy Director for Operations, will take over Brog's line responsibilities, with the exception of emergency services, which will move under Michael Bebon, Assistant Laboratory Director for Facilities & Operations.

Also, the High Flux Beam Reactor is now a DOE environmental management project and, as such, will be managed by Michael Schlender, Assistant Laboratory Director for Environmental Management.

In his remarks on D'Angio, Marburger said, "his departure will create a 'human sensitivity vacuum' that we must endeavor to fill by our own reaffirmation that people are uniquely important to what we are trying to do here."

Marburger described Brog as a forceful and effective leader, saying that the Lab needs to learn to use the new management systems he established in a way that is suited to BNL's culture and history.

Marburger also noted that Bet Zimmerman, Environmental Services (continued on page 2)

Linda Chang Named Medical Department Chair

Linda Chang, formerly an associate professor of neurology at the University of California at Los Angeles (UCLA) Medical School and a researcher at Harbor-UCLA Medical Center, has been appointed Chair of the BNL Medical Department, effective September 18.

Chang succeeds Nora Volkow, who had been promoted to Associate Laboratory Director for Life Sciences. BNL scientist Gene-Jack Wang had served as Interim Chair until Chang assumed her position. He has returned to full-time research in the Medical Department.

The Medical Department has a staff of 65 and a yearly budget of about \$13 million. Research areas include: the use of positron emission tomography (PET) and other imaging techniques to investigate the effects of addiction, aging and HIV on the brain; the study of radiation effects on the neural system; and tumor detection. The department also develops and evaluates novel radiopharmaceuticals for the diagnosis and treatment of cancer. Unique radiopharmaceuticals are produced for distribution to researchers and industry.

Chang explained, "I have used imaging technologies such as magnetic resonance

imaging (MRI) to investigate neurological disorders, addiction, and HIV, so I am well-prepared to continue this work at Brookhaven. I look forward to expanding the Laboratory's medical imaging facilities and to integrating PET and MRI further to study diseases such

as addiction and the effects of HIV on the brain."

Chang added that she hopes to recruit outstanding young scientists who specialize in neuroimaging to work in the newly expanded PET research center and the MRI program. She foresees a growing depart-

ment in the future, with several strong programs.

Also, Chang said, she views the Medical Department as "a good training ground for future scientists," and she encourages her staff to continue Brookhaven's tradition of providing research opportunities to students.

Board-certified in both neurology and electrophysiology, Chang earned a B.S. in biochemistry at the University of Maryland in 1981, an M.S. in physiology and biophysics at Georgetown University in 1982, and an M.D. at Georgetown University School of Medicine in 1986. She served her internship in internal medicine at the University of Southern California Medical Center, and her residency in neurology at UCLA Medical Center.

From 1981 to 83, Chang was a chemist and research assistant at the National Institutes of Health. She began her career at UCLA as a clinical instructor and research associate in 1991. Chang is the recipient of several awards, including the 1998 Richard E. Weitzman Award in Biochemical Research, an annual young investigator research award given by Harbor-UCLA Medical Center.

— Diane Greenberg



Linda Chang

Roger Stouenburgh Oct-10-10-00

Calendar of Laboratory Events

- The BERA Sales Office is located in Berkner Hall. It is open on weekdays from 9 a.m. to 3 p.m. For more information on BERA events, contact Andrea Dehler, Ext. 3347 or M. Kay Dellimore, Ext. 2873.
- Additional information for Hospitality Committee events can be found at the Lollipop House and the Laundry Room in the apartment area.
- The Recreation Building is located in the apartment area.
- Calendar events flagged with an asterisk (*) have a longer story appearing in this week's Bulletin.

*Medical, Dental Enrollment Open Until 10/31

Every Tuesday

Welcome Coffee

10-11:30 a.m. Recreation Bldg.
Hospitality event

Every Wednesday

On-Site Playgroup

9:30 a.m.-11:30 a.m. Recreation Bldg. Parents can meet while children play. Free, drop in any time. Monique de la Bey, 399-7656. —Hospitality Event.

Yoga Practice Sessions

Free, 12:10-12:50 p.m. Recreation Bldg.
First class: 10/11
More information: Ext. 3924.

Every Tues. & Thurs.

Aerobic Dance

5:15 p.m., Recreation Building
\$4 per class or \$35 for any 10 classes. Pat Flood, Ext. 7886,
Susan Montelone, Ext. 7235.

Every Mon., Tues., & Thurs.

Cardio Kickboxing

Day Classes
Mondays and Thursdays
noon-1 p.m.
Evening Classes
Tues. & Thurs., 5:15-6:15 p.m.
Tues. class: in Gym
Mary Wood, Ext. 5923,
wood2@bnl.gov.

—WEEK OF 10/9—

Tuesday, 10/10

BNL Toastmaster Club

Bldg. 643, Room 157, 7-9 p.m.
2000 Humorous Speech and
Table Topic Contest from the
five clubs of Area 63. Free, all
are invited.

Wednesday, 10/11

*Noon Recital

Award-winning pianist Leon
Livshin, SUNY Stony Brook,
will play at Berkner Hall, noon
-12:45 p.m., Free, all welcome.

Weight Watchers

Late registration & first session
\$89, Brookhaven Center
South Room, Mary Wood,
Ext. 5923, wood2@bnl.gov.

Rifle & Pistol Club

noon, 535A conference room,
Joe Gatz, Ext. 4212, Jim
Durnan, Ext. 5993, or the
club's hotline, Ext. 2658.

Friday, 10/13

Golf Tournament

BERA Golf Association tourna-
ment. Contact: Jeff Williams,
Ext. 5587, jwilliams@bnl.gov.

All Hands Meeting



Roger Stoulenburgh 00011000

Division Manager, will leave the Lab at the end of the year. Most recently, Zimmerman has been working to transfer the environmental management of about 500 acres of ecologically sensitive on-site property to the U.S. Fish and Wildlife Service.

Landmarks for FY00

Marburger cited RHIC as being the most spectacular landmark of the year, saying, "RHIC achieved its scientific goals for the year." He noted that, all four detectors planned to report on data taken during the past three months, at a nuclear physics conference in Williamsburg, Virginia this week.

Marburger also reminded the audience that, shortly after achieving gold-on-gold collisions, RHIC went on to accelerate polarized protons (see *The Bulletin*, September 28, 2000), which was "quite a remarkable feat." He thanked Satoshi Ozaki, Thomas Roser, and the entire RHIC team for their efforts.

Now Assistant to the Director for Accelerator Projects, Ozaki will steward Brookhaven's interest in some of the most important new accelerator projects in the world: the next linear collider and a muon storage ring.

Changes are also occurring at the National Synchrotron Light Source. Marburger said that Sam Krinsky is serving as interim Chair while a search for Michael Hart's successor is under way. He expressed delight with continued progress on the high-gain harmonic-generation free electron laser technique.

Marburger welcomed new department Chairs Creighton Wirick, Environmental Sciences; Bill Horak, Energy Sciences & Technology; and Linda Chang, Medical.

He also mentioned a recent BNL-initiated stand down on human subjects research, during which the Lab reviewed its procedures in this area, and he thanked Gene-Jack Wang for his service as interim Medical Chair during this period.

Moving to non-science breakthroughs, Marburger reported on the DOE Integrated Safety Management verification that occurred this summer, as well as the eight organizations that achieved ISO 14001 registration following RHIC's registration last year.

"The result has been very positive," said Marburger. "I see an improvement in the attitudes of DOE and the regulators toward the Laboratory."

He then moved to proton radiography.

Said Marburger, "After getting feedback from many sides, I plan to propose to the BSA Board of Directors that, beyond

the static experiments that have been proceeding since 1996, dynamic experiments should not be performed employing classified targets or targets containing radiological materials. I have discussed this limitation with [Los Alamos National Laboratory] Director, John Browne, and he has accepted these terms. I would like to thank everyone for the responsible manner in which these discussions have taken place at the Laboratory."

Marburger added that John McClelland, the leader of the Los Alamos experimental team, had declared that, under these conditions, the dynamic experiments would probably not proceed.

Marburger acknowledged the proposed dynamic experiments as "controversial," saying, "a lot of people think this is too close to weapons work."

"It is not our goal to be, or to be regarded as, a weapons laboratory," he said.

FY01 Budget

Marburger described the FY01 budget as "the best that I have seen for this Laboratory," referring to important increases in Office of Science programs (see budget update in next week's *Bulletin*).

He also described a nationwide effort to urge congressional leadership to support the President's request for DOE science, saying that BNL, users, partner universities, and the broader scientific and academic communities participated. "There is a dawning awareness among other federal science agencies that DOE laboratory facilities are necessary for their programs," said Marburger. "That's a sea change."

Marburger commented that Senator Charles Schumer has become a good friend of the Laboratory. Schumer is not only interested in environmental clean up, but also very supportive of the NSLS and nanotechnology, both of which will see important new funding this year.

The good FY01 budget, said Marburger, will make it easier to carry out plans to improve salaries for younger staff, including postdocs.

Future

DOE has finally recognized that its facilities are aging, said Marburger, and he went on to describe a site master plan put together by Bebon. The plan includes road realignments and new buildings, all to make the site easier to navigate for employees and users, and more amenable to pedestrian traffic.

Under the plan, several new buildings would be con-

structed starting in 2002: a facility user research center, energy science center for diverse programs that were under the former DAS and DAT departments, cyclotron isotope research center, and a nanoscale science research center. Later would come a research support center, a seven-tesla magnetic resonance imaging machine, and a major renovation of existing science buildings.

With the closing of the medical reactor, Brookhaven's user facilities are all accelerator based, Marburger observed. The plan will be to use the high energy accelerator complex, RHIC/AGS, to "look more closely at phenomena we think we understand to detect signposts to new physics," said the Director.

"It is now almost certain that a set of high-energy experiments acronymed 'RSVP,' or Rare Symmetry Violating Processes, will be supported at the AGS by the National Science Foundation, a new sponsor for this sort of work," said Marburger, giving Tom Kirk, Assistant Laboratory Director for High-Energy and Nuclear Physics, credit for managing the campaign to secure this support.

Marburger also described an upgrade of RHIC leading to a large electron device called eRHIC. Deputy Director for Science and Technology Peter Paul has been advocating this concept for several years, he stated.

"We must leverage our existing facilities," said Marburger, and added that similar upgrade proposals exist for the NSLS.

Marburger also expects to see recovery in the life science and applied science areas, which have been devastated by dramatic changes in funding pat-

terns during the past decade.

Medical science will grow in imaging and instrumentation. Biology will profit from functional genomics studies. Environmental and energy science and technology have natural growth paths that link urgent societal needs to Brookhaven's traditional technical strengths. Chemical and materials sciences will be driven by the same societal needs and by a surge in nanoscience funding as well.

Neutron science in the short run is going to be driven by the nation's need to utilize the Spallation Neutron Source.

Morale

"I'm optimistic," stated Marburger. "So the question is, 'why aren't you?'"

Acknowledging that morale is low and "many of us are working harder and enjoying it less," the Director recognized that the Lab is changing.

"I am absolutely confident that the way [the Lab] will be in the future will be better because it will be more suited to the new world that has changed inexorably and irreversibly around us," he said.

"I sit at the interface between the Laboratory and its diverse stakeholders, regulators, users, and partners. What I see from this vantage point gives me great encouragement and great hope. It is obvious to me that, like it or not, this Laboratory is performing at a level rarely matched by any other scientific organization. We are in fact emerging from the pall of doubt that blinded the world for a while to the value of this institution. It is happening because you want it to, and that works every time." —Mona Rowe

Inside Information

Eating Disorder Conference

On Friday, October 27, Joanna Fowler of BNL's Chemistry Department and Nora Volkow of BNL's Medical Department will be speaking at a conference entitled "Healing in Eating Disorders," which is being held at the State University of New York at Stony Brook (USB) on October 27 & 28. This conference is designed to be of interest to psychologists, psychiatrists, nurses, primary care physicians, counselors, nutritionists, social workers, and other health care professionals. There is a registration fee of \$150 to attend a single day of the conference, and \$250 to attend both days. A prorated fee may apply to those interested in specific talks. For information, contact USB's Office of Continuing Medical Education, 444-2094.

Shanklin Receives Terry Galliard Medal

After giving a distinguished lecture at the 14th International Symposium on Plant Lipids, which was held in Cardiff, Wales, this July, BNL's John Shanklin of the Biology Department received the Terry Galliard Medal for Plant Lipid Biochemistry.

HR Manager Robert D'Angio Retires From the Lab

Robert D'Angio, Manager of the Human Resources (HR) Division since 1981, is to retire from BNL next Friday, October 13. Laboratory Director John Marburger expressed the feeling of many employees when he noted, "This is sad for us, because Bob is universally liked and respected, and many people have benefited from his wise and sensitive handling of personnel issues at the Lab."

As HR Director, D'Angio will join the National Radio Astronomy Observatory in Charlottesville, Virginia, which is managed by Associated Universities, Inc.

D'Angio came to BNL in January 1977, following eight years with the Irving Trust Company in Manhattan. At that time, he was primarily involved in developing training programs and participating in labor negotiations.

When Joseph Washburne retired as Manager of the then Personnel Division, D'Angio was chosen to succeed him. A Bulletin article of the time discussed D'Angio's plans, which have become part of life at the Lab. The plans included having meetings for employees on subjects such as supervisory training, updates on benefits, and retirement planning; having benefits continually reappraised; and, with regard to assisting line management in accomplishing its objects, "doing everything in our power to

be not only a service organization, but truly a support organization."

Comments from colleagues and friends show that D'Angio's always professional support for management objectives has been equalled by his support for employees' interests.

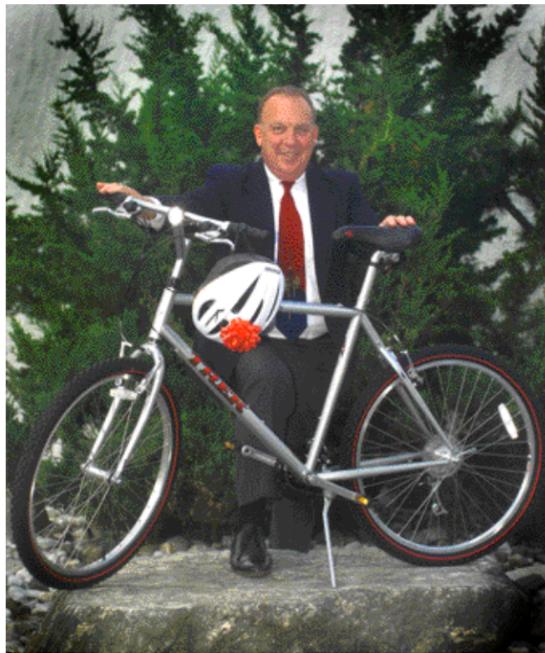
"Over the years of decreasing budgets and increasing pressure to save money wherever possible, Bob has been the champion for employees. When they look at their benefits, they can thank Bob D'Angio," said Bill Hempfling, a long-time HR member who will serve as the interim HR Manager, "And at any time of personnel cuts, the employment group does its utmost to find employees other jobs within the Lab. Bob drives this effort."

D'Angio's concern for employees and his high credibility at all levels has benefited the Lab in many sensitive areas. In the two decades of his tenure, three unions have been able to work with management without ever experiencing total breakdown in relations.

Another employee group, the Brookhaven Organization of Scientists (BOS), comments that D'Angio has been "a straight shooter," in conveying information. Not only does BOS cite him as having given "true and accurate accounting,

often with patient explanation" of administrative actions. But also, BOS stated in UPDATE, "More than anyone else, Bob has represented the human side of Human Resources."

The human side of BNL was enriched by D'Angio's participation, with HR members, in Lab functions, rain or shine. At Lab picnics and many celebrations, the organizers have been encouraged in their efforts by D'Angio and a cheerful HR group who helped all go well. His thoughtfulness for employees was also shown in his active support for the BNL group involved in starting the Child Development Center (CDC), which has become a model of such facilities. Opening in 1991, the CDC was established well before most Long Island companies had child care available and was first



Roger Stoulenburgh BNL/980808

Robert D'Angio, Manager of the Human Resources Division since 1981, is retiring from BNL next Friday. He is pictured here in June of 1998 giving away a prize after conducting the first Lab-wide employee survey. The bike was awarded by a drawing to an individual who had completed and returned the survey.

among other national labs.

"I look forward to the challenges at the Observatory, but I will miss my Brookhaven family. During my career, I have had the honor and privilege to work with many loyal, dedicated, and hard-working employees who have made this a great Laboratory. I believe much of my success at the Laboratory is due to my staff in the HR Division. I wish them and the entire Laboratory continued success," said D'Angio.

— Liz Seubert

Multiple Sclerosis Study

the brain's blood vessels and into the brain tissue. The contrast agent washes out of the brain and body shortly after the examination.

Blood-brain barrier

In normal subjects, what is called the blood-brain barrier lining the brain's blood vessels ensures that the brain stays tightly sealed, to maintain stable volume and keep toxic substances out of this vital organ. But the scientists suspect that water and other substances move more easily

across the blood-brain barrier in MS patients.

The scientists will re-examine the subjects each month to look for changes over time and follow the development of MS lesions to see if they can be correlated with the brain's permeability to the contrast agent.

Are the patients with the leakiest blood vessels more likely to have more lesions? Is the blood-brain barrier leaky over the entire brain, or just in the regions where lesions form? Are people with leaky

vessels more susceptible to the disease? These are just some of the questions Rooney and his team hope to answer.

Early intervention

Researchers may also use the technique to learn whether any of the drugs currently used to treat MS might reverse blood-vessel leakiness and possibly prevent the formation of lesions. Studies reported in the news the week of the grant announcement suggest that such early intervention can delay the progress of the disease.

The BNL study is one of 54 new research projects being supported by the NMSS this year. It will be done in collaboration with Patricia Coyle, Medical Director of the MS Center at the State University of New York at Stony Brook (USB), and Lauren Krupp, a USB neurologist. They will recruit approximately 25 patients with relapsing-remitting MS, the most common form of the disease, and 25 normal control subjects.

"We're excited by the promise new projects such as this one hold for bringing answers to MS," says NMSS Long Island Chapter President Johanna Biederman. "Since its founding 54 years ago, the Society has invested \$290 million to unlock the mysteries of multiple sclerosis — an investment into basic and clinical research that is responsible for the rapid progress we're seeing now."

In addition to improving our understanding of the MS disease process, Rooney says, "This work will help determine the feasibility of extending these techniques to the study of other disease states, such as Alzheimer's, brain tumors, and even human immunodeficiency virus [HIV]."

For more information about the National Multiple Sclerosis Society, call the Long Island Chapter, 864-8337 or log onto www.nmss.org.

— Karen McNulty

Calendar

(continued)

Saturday, 10/14

N.Y.C. / Planetarium

\$19 per person
Do your own thing, or visit the Planetarium or the American Museum of Natural History. Bus will stop: North side of Museum at West 81st Street and at Rockefeller Center. Departs Brookhaven Center 11 a.m. and Returns 7 p.m. — BERA event.

Sunday, 10/15

Walk to Fight Breast Cancer

Walk the Jones Beach Boardwalk to help raise money for the American Cancer Society. Information: BERA Sales Office. Mary Wood, Ext. 5923 — BERA event.

Wednesday, 10/18

CTP Wireless Demo

10 a.m.-2 p.m., Berkner Hall

*Brookhaven Lecture

4 p.m. Berkner Hall
Jeff Mitchell will speak about RHIC's PHENIX detector

Thursday, 10/19

Bridge Club

7:15 p.m., Berkner cafeteria
contact Morris Strongson, Ext. 4192, mms@bnl.gov.

Sunday, 10/22

American Heart Assn. Walk

Beginning at two locations:
• Suffolk Community College in Riverhead
• SUNY Farmingdale
Registration at 8 a.m.
Contact Mary Wood, Ext. 5923

—WEEK OF 10/23—

Monday, 10/23

Healthfest 2000 Walk

12:05 p.m. (Stretch: 11:45)

Tuesday, 10/24

Healthfest 2000 Run

12:05 p.m. (Stretch: 11:45)

Wednesday, 10/25

Healthfest Health Fair

11 a.m.-2 p.m.

Mountain Bike Ride

noon

Brazilian Folk Music Recital

noon recital, 8 p.m. concert
Berkner Hall ANIMA ensemble performs traditional Brazilian music.

Thursday, 10/26

Healthfest Health Fair

11 a.m.-2 p.m.

Tennis Fitness Workshop

11:30 a.m.-1:30 p.m.

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. Please enter the 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.

BSA Noon Recital, October 11



Leon Livshin will present a piano recital at noon on Wednesday, October 11, in Berkner Hall.

Livshin was born in Vilnius, Lithuania, where he received his first formal musical education at age five and gave his first recital two years later. He won several national youth competitions that led him to perform extensively in the former Soviet Union, as a soloist and as a chamber player, where he was invited to play at the residence of the President of Lithuania. At age 17, he studied at the Lithuanian Music Academy and later with at the Moscow Conservatory. He participated in numerous master classes with various renowned artists.

In 1988, Livshin was invited to perform in Trieste, Italy, after having won the top prize in the Saint-Vincent

International competition. Livshin performed as a soloist and chamber player in Germany, Switzerland, and the Czech Republic. In Germany, he studied at the Stuttgart Musik Hochschule. In 1991, he won the first prize in the Minsk International competition and he performed with the Lithuanian Philharmonic Orchestra and with the Lithuanian Chamber Orchestra. The same year, he received a scholarship from the Liberation Foundation and a grant from the Eastman School of Music, where he earned his master's degree. Livshin is currently working toward his doctoral degree at SUNY at Stony Brook.

BSA Lunchtime Recitals are free, informal, and open to all. Audience members may bring lunch and come and go as they please. For more information, call Ext. 4066.

Benefit Notes

Medical, Dental Enrollment Open Until October 31

During open enrollment, described below, employees who want to change their medical and/or dental coverages must contact the Benefits Office, Bldg. 185, Ext. 2877 or (800) 353-5321 by Tuesday, October 31.

Medical, Dental Open Enrollment

Until October 31, eligible employees working 20 or more hours per week may make changes to their medical and dental coverages: employees may join a medical and/or dental program, change from one program to another, add or drop coverage for family members, or drop coverage entirely. Also until October 31, retirees and participants on long-term disability or COBRA may make changes to their medical and/or dental coverage.

Coverage changes made during the open-enrollment period will become effective January 1, 2001. Changes can only be made during the annual open-enrollment period or when what is called a qualifying event occurs. Qualifying events include: the birth or adoption of a child; marriage, divorce or legal separation; loss of dependent status; or a spouse's gain or loss of employment. Qualifying events allow employees to make certain changes to their coverage within 31 days of the event. Employees who do not want to change their coverage at this time do not have to do anything for them to continue.

Medical Choices: PPO vs. HMOs

The medical insurance plans available to eligible employees are: CIGNA preferred provider organization (PPO); and three health-maintenance organizations (HMOs): Vytra, Aetna U.S. Healthcare, and HIP. Employees who enroll in any of these plans must pay a contribution toward the cost of coverage.

In a PPO program, health care is provided through a network of physicians and health-care facilities, but provisions are made so that participants can obtain such care from providers who are not in that network. For care provided within the network, there are no claim forms to submit. For care received outside the network, claim forms must be submitted to receive partial reimbursement.

In an HMO, employees receive medical services from physicians and at health-care facilities within the HMO's provider network. There are no claim forms to submit, and many services are covered, including physician visits, well-baby care, surgery, x-rays, hospitalization, diagnostic tests, and prescription drugs. Some HMOs require a co-payment at the time services are rendered.

Dental Choices: CIGNA vs. Eastern

Two dental insurance plans are available to eligible employees: the CIGNA Dental Health Plan, and the Dental Assistance Plan administered by Eastern Benefit Systems. Employees who enroll in either of these plans must pay a contribution toward the cost of coverage.

Under the CIGNA Dental Health Plan, there are no deductibles, no maximum benefits, and no claim forms to submit. Dental services are provided through a network of participating dentists. Many preventive and basic services are covered in full. Reimbursement for restorative and orthodontic services is based on a fee schedule.

Under the Dental Assistance Plan administered by Eastern Benefit Systems, employees may choose any dentist, and reimbursement for preventive, diagnostic, basic, and major dental services is based on a fee schedule. Orthodontia for dependent children is covered at 50 percent of a reasonable and customary charge. Claim forms must be submitted.

The Dental Assistance Plan has a \$25 individual and \$75 family deductible per calendar year for basic and major dental services. The maximum benefit is \$1,000 per person per calendar year for non-orthodontic services; there is a separate \$1,000 lifetime maximum per child for orthodontia.

Plan Representatives on Site

To help employees decide among the medical and dental plans, representatives of all the above plans will be in Berkner Hall over four days: from 11 a.m. to 2 p.m. on Wednesday, October 11, and Thursday, October 19; and, during the Healthfest 2000 health, fitness, and safety fair, from 11 a.m. to 2 p.m. on Wednesday, October 25, and Thursday, October 26.

During these dates and times, literature on the plans will also be available, including comparison sheets, and lists of participating physicians, dentists and health-care facilities. In addition, representatives of the Benefits Office will be available to answer questions.

Take Note

- The BNL Safety Glasses Office will be closed on Wednesday, October 11 and will reopen the following Wednesday, October 18.
- Beginning on October 30 the Cashier's Office, located in Bldg. 134, will be open from 1:30 to 3:30 p.m., Monday through Friday.

Junior Achievement Is Looking for BNL Volunteers

Junior Achievement is holding an informational meeting at noon on Thursday, Oct. 12 in Berkner Hall Room B. Junior Achievement would like to recruit Lab employees to serve as volunteers in Longwood High School business classes.

Junior Achievement is a national, nonprofit organization that reaches out to over 3.5 million students, from kin-

dergarten through 12th grade, that is dedicated to improving the lives of children by motivating and inspiring them.

In addition to receiving specialized training, volunteers are taught how to use an interactive, colorful, and information-rich curriculum produced and supplied by Junior Achievement. Volunteers serve in the classrooms, teaching and connecting with a class of students anywhere from

five to ten times over the semester.

These volunteers not only teach about business and economics, but they teach life skills, instill confidence, and drive home the economic value of a diploma.

People are welcome to bring their lunch to this meeting. For more information contact, Louise Hanson, Ext. 5849, hanson2@bnl.gov.

Classified Advertisements

LABORATORY RECRUITMENT - Opportunities for Laboratory employees.

DD7382. OFFICE SERVICES POSITION (term appointment) - Requires an AAS degree in secretarial science or equivalent experience, excellent typing and communication skills, knowledge of Microsoft Word and the records management database. Will act as an assistant to the Reactor Division's Records Representative by conducting the inventory process, updated the records management database, perform other various records management tasks and functions such as packing record boxes. Extensive lifting and climbing required. May be asked to provide support to other groups of the Reactor Division as needed. Reactor Division.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

MK8390. ASSOCIATE SCIENTIST POSITION - Requires a Ph.D. in Chemistry with extensive background in environmental sciences. Specific knowledge of DOD and DOE environmental issues and research programs, including natural attenuation through microbial bio-reduction, radioactive waste treatment, thermodynamic modeling, how the geochemical separation of a metal influences its transport and fate in the geologic systems, groundwater remediation and the phytoremediation. Environmental Sciences Department.

MK9004. SCIENTIST - Requires a Ph.D. in biochemistry or biophysics and experience in macromolecular crystallography. Will be responsible for developing, operating and maintaining a National Synchrotron Light Source beam line devoted to work in this field. In addition to these responsibilities, will support a user program, develop a program of original or collaborative research that effectively utilizes the facility's capabilities, be responsible for supervising support staff, and preparation of grant applications, reports and publications. Under the direction of R. Sweet. Biology Department.

MK9006. SCIENTIST - Requires a Ph.D. in biochemistry or biophysics and experience in macromolecular crystallography. Will develop and operate a program for remote measurement of data for research in this field and provide specialized user support within the consortium for macromolecular crystallography formed by Biology Department and the National Synchrotron Light Source Department. In addition, will be expected to develop a program of original or collaborative research that effectively utilizes

the facility's capabilities, be responsible for supervising support staff, and preparation of grant applications, reports and publications. Under the direction of R. Sweet. Biology Department.

MK8633. POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in physics, chemistry or materials science and a strong background in instrument development. Experience with neutron scattering is highly desirable. Position is with the Center for Neutron Science to work on the design and development of a triple axis spectrometer at the new cold source at the HFIR in Oak Ridge, Tennessee. Under the direction of J. Hastings. National Synchrotron Light Source Department.

MK9047. POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. or MD with first-hand experience in structural and functional MRI of the brain, and other physiological MRI procedures such as perfusion and diffusion MRI. Research experience in neuroscience, neurology, neuroradiology highly desirable as is computer skills, performing MRI scans, functional MRI scans, injection of MRI contrast agents and interpretation of brain scans. Will participate in NIH funded studies on the effects of HIV infection and drug abuse on the human brain using MRI. Under the direction of T. Ernst. Medical Department.

DD8619. DIAGNOSTIC TECHNICIAN POSITION - Will work in a small group constructing and testing custom VME based laboratory instrumentation. Responsibilities range from prototyping to final testing and installation of controls and diagnostic equipment. Work will be done under the direction of a group supervisor while working closely with engineers and physicists. Work involves feedback systems, high-speed precision data acquisition, and timing controls. Requires a thorough knowledge of digital and analog electronics. Familiarity with high-speed analog and RF techniques is desirable. Must be able to use standard test equipment and work from schematics, rough sketches and verbal instructions. BSET preferred. National Synchrotron Light Source Department. (Reposting)

TB8983. TECHNICAL POSITIONS - Requires an AAS degree or equivalent, with experience in electronic technology, electronic CAD and board layout tools for printed circuit boards. General shop and hand tool skills are required. Should have experience using soldering equipment to repair and assemble printed circuit boards with fine pitch SMT electronic parts. Good communication skills and the ability to work in a group setting are important. Familiarity with personal computers and Microsoft systems is highly desirable. Responsibilities will include prototyping, fabricating, maintaining,

and repairing of sophisticated electronic systems. Physics Department

TB9046. RESEARCH SERVICES POSITION (Term Appointment) - Requires 18-24 months' prior experience in laboratory setting to perform routine laboratory procedures. This includes preparation of buffer solutions for biochemical assays, chromatography, work-up of animal tissues for determination of radioactivity by liquid scintillation counting and gamma counting, and data input into computer applications. Medical Department.

Arrivals and Departures

Arrivals

Isabel Campos
Environmental Sciences

Richard J. Gambella
NSLS

Sven Heinemeyer
Physics

David E. Jaffe
Physics

Gang Liu
Chemistry

Konstantinos Orginos
Physics

Weidong Si
Physics

Ivan A. Sirakov
Energy Sciences & Technology

Departures

Michael Bohenek
Applied Science

William M. Bone
Central Shops

Kenneth C. Brog
Directors Office

Alexei V. Fedorov
Physics

Mahmoud L. Firouzbakht
Waste Management

Oleg Gerasimov
Chemistry

Vinita Ghosh
Physics

Coming Up Brookhaven Lecture

On Wednesday, October 18, at 4 p.m. in Berkner Hall, Jeff Mitchell, Physics Department, will give the 357th Brookhaven Lecture on the PHENIX detector at RHIC. All are invited.

Farewell Gathering for Bob D'Angio

There will be a gathering for Bob D'Angio next Thursday, October 12, from 5:30 to 9:30 p.m., at Majestic Gardens in Rocky Point. The party costs \$25 per person, which includes a gift, hors d'oeuvres, coffee, tea, and dessert. There will be a cash bar as well. RSVP immediately to Debbie Maceluch, Ext. 5126, debbiemac@bnl.gov.