the Bulletin

BROOKHAVEN NATIONAL LABORATORY

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Bulletin Special Edition: BNL Summer Students Discover 'A Passion for Discovery' As U.S. DOE, BNL's Office of Educational Programs Open Doors to Careers in Science

D1510807

All photos on this page are by Joseph Rubino

Summer Undergrad Programs: Investing in the Future Workforce

On the morning of June 5, the message "Welcome all summer students!" lit up the sign as employees entered Brookhaven National Lab to start their workday. For the next ten weeks, dozens of undergraduate and graduate students could be seen on the Lab site, making their way between their labs, dorms, Berkner Hall, and the Office of Educational Programs (OEP).

These students were participants in paid summer intern programs. Within their ten weeks at BNL, they worked side-by-side with a mentor to complete a project and deliver a poster and paper describing their research. The summer programs include Science Undergraduate Laboratory Internships (SULI), Pre-Service Teacher (PST), Community College Institute (CCI), and Graduate Research Internship Program (GRIP), and others (for brief descriptions, see pages 2 and 3).

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Speakers at the summer student programs' closing ceremony: (from left) U.S. Representative Tim Bishop, Deputy BNL Director for Science & Technology Doon Gibbs, DOE's Director of the Office of Workforce Development for Teachers & Scientists Bill Valdez, BNL's Manager for the Office of Educational Programs Ken White, and DOE's Brookhaven Site Office Manager Michael Holland.

Closing Ceremonies

Ten weeks later, on August 8 and 9, when this year's summer programs came to a close, a poster session, oral presentations, and closing ceremonies celebrated the students' research and activities. Berkner Hall was filled with cheers and laughter as students remembered orientation, the softball game, and the talent show — and alive with continuing discussions of the work that they had accomplished.

Hosting the closing ceremonies, OEP Manager Ken White thanked the students for their excellent contributions to the success of the summer, and all the OEP staff and volunteer BNL scientist mentors who had made the programs possible.

White introduced BNL's Deputy Director for Science & Technology, Doon Gibbs, who spoke directly to the students.

"If I can ask you to remember one thing about Brookhaven as you leave, it is our ideal, 'A passion for discovery,'" Gibbs said. "I hope you all had some sense of the real excitement that I still feel after 25 years at the prospect of uncovering something really new, something that no one else has seen before. That's a remarkable feeling. And that's what drives us here at the Lab, that passion for discovery."

Next, White introduced Michael Holland, DOE's Brookhaven Site Office Manager, who congratulated all concerned for a productive summer. Holland underlined the importance of DOE's involvement in science education.

"You've seen small and big science," Holland said. "You've seen labs and large facilities like the National Synchrotron Light Source (NSLS), the Relativistic Heavy Ion Collider, and the Center for Functional Nanomaterials, and the promise for new machines like NSLS-II. All of those things have one thing in common and that's people. People like you, who dream and think, plan and build and operate facilities, do the research and teach others. DOE is most interested in making sure that we have the next generation of thinkers, planners, and dreamers so that we can continue to go after the grand challenges in science."

Holland introduced the next speaker, U.S Representative Tim Bishop. The Lab has benefited in many ways from the commitment and support shown by Bishop, who has, for example, attended every annual summer student closing ceremony since 2003 when he became a Congressman for the First Congressional District. The former Southampton College Provost for many years, Bishop is a member of the House Education and Labor Committee. Praising the science students and BNL staff for their efforts, he spoke of the need for more scientists.

"We really need you in this country," Bishop said. "We are in a time in which science does not necessarily have the value that it ought to have. We need to renew our faith in the scientific process. We need to continue to focus on expanding our frontiers of knowledge, and we're looking to people like you to do that."

Keynote speaker Bill Valdez, DOE's Director of the Office of Workforce Development for Teachers & Scientists, was the next speaker, praising both BNL staff and the students for the extremely high standard for the summer program. He first presented the DOE Outstanding Mentor Award for 2006 to BNL scientists who had devoted time and enthusiasm to help students benefit from their summer work. Valdez particularly emphasized the importance of bringing current students into the science and technology workforce to sustain the country's status as the "biggest innovative nation in the world.

"To actually get out and see the results of what we do in Washington and see it in your faces and projects that you've done is really a treat for me," Valdez said. "It really is extraordinary to see the results of the program that we manage."

Many Students Return

Showing that many of the BNL's participating summer students experience the passion for science, many who come to BNL in one program are so interested that they return another year. For example, Daniel Carrero, who, after graduating from Stony Brook University this spring, returned for his second summer at BNL. Last year, Carrero did research in physics as a SULI student. This year, he changed gears and joined the staff at OEP as a policy student, providing support and coordinating activities for summer students. Carrero found that he enjoyed the opportunity to interact with the interns, especially in one-on-one visits to their labs to talk about their research projects, he said. He will continue to study physics this fall at Rensselaer Polytechnic Institute.

Another "returnee," Jessica Pai, attends New York University. She returned this year for her second summer in the SULI program, working with Stephen Dewey of the Medical Department on addiction studies.

Pai's research on a potential treatment for food and drug addiction will be showcased in the *Journal of Undergraduate Research*. The time she has spent doing research as a SULI participant has led her to consider a health-related career, and she said she is "currently most interested in health law." Beyond the research experience and career direction Pai's time at BNL has provided, she was inspired by the diversity of scientists and studaents and their "commitment to advancing science." She will return to New York University this fall.

Yet another student, Joseph Heard, a recent graduate of the Community College of Philadelphia, is a third-time returning student. Heard first came to BNL through the one-week Mini-Semester Program, held for community college students during the winter break. The students, who are recommended to BNL by their college counselors, get a whirlwind introduction to scientific research, including lectures, hands-on science labs, and tours of various Lab programs.

After discovering what the Lab had to offer, Heard came to BNL last summer as a CCI participant. This summer, he returned again, this time as a SULI student. He worked with Carol Scarlett of the Physics Department, studying the effect magnetized oxygen has on a photon beam. He appreciated the way Scarlett "stepped back and allowed my team to work through the project ourselves," he said.

Before coming to BNL, Heard had "never really considered research or grad school." Now, he says, "Research is my passion and I am going to acquire my Ph.D." Heard attends the University of Arizona this fall as a math major with a minor in astrophysics. His goal is to return to BNL next summer and work on the Large Synoptic Survey Telescope project. — Allison Bland

Introducing Allison Bland

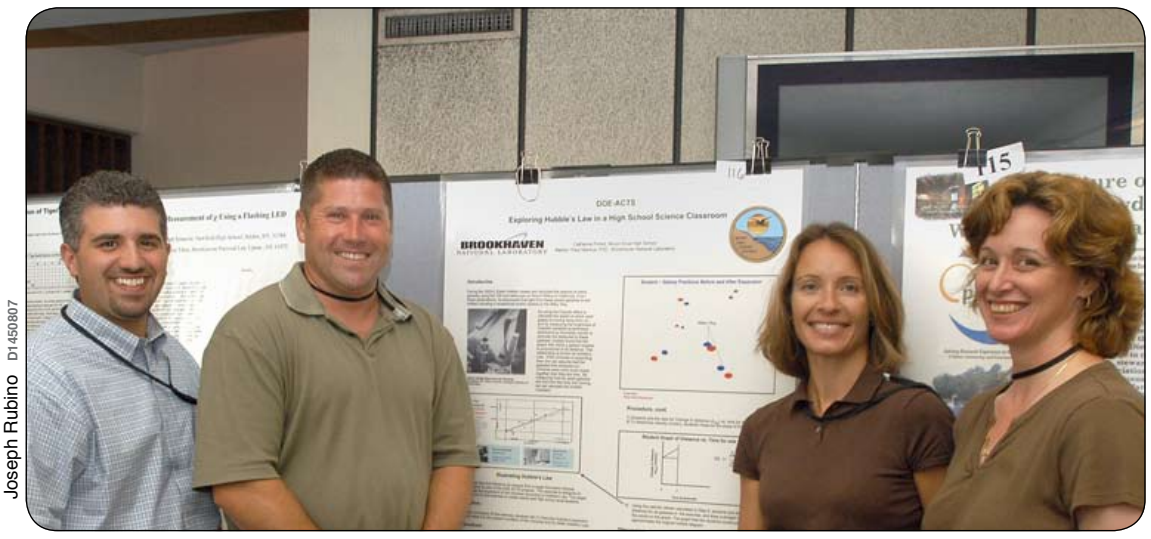
Stories in this Special Edition of the Bulletin, featuring BNL's Office of Educational Progams, are by Allison Bland, who joined the Community, Education, Government and Public Affairs Directorate this summer as a science-writing intern. Bland has now returned to McGill University to complete her degree.

Inside and Back Cover

BNL Partners With Teachers, University Faculty

Academies Creating Teacher Scientists (ACTS)

Local teachers and BNL researchers team their enthusiasm and expertise to produce an exciting new DOE-sponsored partnership called Academies Creating Teacher Scientists (ACTS). This three-year program is designed to enhance teachers' understanding of science and technology and provide BNL researchers with opportunities for sharing their knowledge with teachers.



Joseph Rubino D1450807

Office of Educational Programs Master Teacher Michael Drozd (second from left) of East Islip High School stands with three DOE "Academies Creating Teacher Scientists (ACTS)" teachers: (from left) Joseph Sinacore of the Middle Country Schools physics program, Catherine Pohlot of Mount Sinai High School where she teaches earth science and astronomy, and Caroline Singler, who teaches earth science at Lincoln Sudbury Regional High School.

Joseph Rubino D1150807

(Above) DOE ACTS program participant Maria Metzger, who teaches biology and research at Southampton High School, studied the tiger beetle, mentored by Tim Green of the Environmental & Waste Management Services Division. Metzger also participates in the Open Space Stewardship Program.

For three consecutive years, teachers spend up to eight weeks at BNL working with a mentor scientist. During these weeks, the teacher trades the classroom for the laboratory and becomes a researcher. By the end of the summer, the teachers have produced a unique educational module that ties current BNL research to innovative lessons for the academic year. They are able to request equipment and supplies that enhance their classroom teaching and maintain communication with their mentors throughout the school year. Teachers also further develop their skills by attending science education and scientific conferences.

Faculty & Student Team (FaST) Program

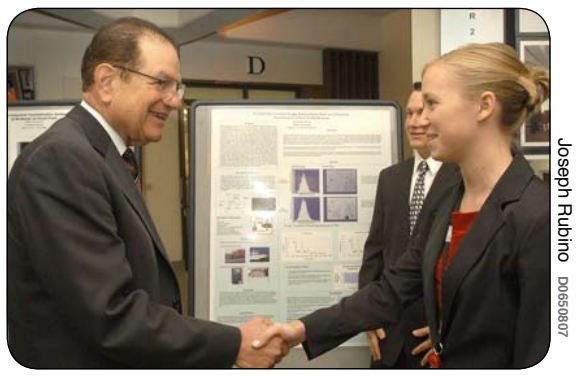
The Office of Educational Programs (OEP) at BNL also offers DOE's Faculty & Student Team (FaST) program in collaboration with the National Science Foundation. FaST is an exciting summer research program for faculty and undergraduate students from colleges and universities with limited research facilities, and for institutions serving underrepresented groups in science and technology fields. Teams of faculty and students in the program come to BNL to immerse themselves in hands-on research and to work in state-of-the-art facilities unavailable at their home institutions.

Since the inception of the FaST program at BNL in 2003, OEP has hosted 26 teams from 20 colleges and universities. The 26 team professors have submitted proposals that resulted in $32,051,000 worth of awarded grants. FaST participants bring their diversity, enthusiasm, and knowledge to their project collaborations with BNL researchers, forging partnerships that can extend to innovative distance-learning opportunities long after the summer is over. These durable research collaborations benefit both institutions. In this way, the Lab's facilities become more accessible to the educational community.

The FaST program, as with most other OEP student programs, depends on the dedication of volunteer BNL mentors. One example is Jim Wishart of the Chemistry Department, who mentored two of the ten 2007 FaST groups: Howard University professor Shawn Abernathy with his team of two students, Kathryn Sims and Kandis Stubblefield; and Queensborough Community College professor Sharon Lall-Ramnarine with her two-student team, Xing Le and Kijana Kerr. In Wishart's lab, the teams studied ionic liquids as part of a "green chemistry" effort.

Joseph Rubino D0470806

Photographed in 2006 were students and teachers of the FaST program who for the second year have now been researching "green" chemistry with mentor Jim Wishart. They include: Jasmine Hatcher, Catherine Urena, Sharon Lall-Ramnarine, and Alejandra Castano.



Joseph Rubino D0650807

On a recent visit to BNL, DOE's Under Secretary for Science Ray Orbach meets summer student interns Kaitlin Thomassen and Chris Brown.

Pre-Service Teachers (PST)

BNL also influences educational achievement through students already working towards teaching careers in science, math, and technology. The DOE-sponsored Pre-Service Teacher (PST) program enrolls future teachers at the undergraduate and post-graduate levels for a ten-week summer internship program. PST participants work with a master teacher and scientist mentors to complete a research project. By the end of the summer, the students deliver an educational module that can be transferred into a classroom setting, along with a poster and abstract.

BNL scientists will see their research and methods reflected in the classroom through these sustained collaborations between teachers and the scientific community. With the Lab's help, partner schools will push ahead in their achievements in science, technology, and math. — Allison Bland

Open Space Stewardship Program

Long Island's rich ecological assets can function as innovative classrooms thanks to BNL's Open Space Stewardship Program (OSSP), a school, government, and community partnership initiated by the Lab's Office of Educational Programs (OEP) in 2006. Through its Gaining Research Experience in the Environment (GREEN) Institute, OEP has combined the interests of students, teachers, communities, and stewards of environmentally sensitive lands by turning the management of Long Island open spaces into an educational experience. The open space program gives students unique opportunities to gain experience in collecting data in the field, educates teachers in hands-on scientific research, and provides input for land stewards' decisions on environmental research and land-use planning.

The first OSSP teacher workshop was held in summer 2006. Several of the educators in the DOE Academies Creating Teacher Scientists program developed curriculum protocols involving data collection with soil and water test kits, sampling nets, field books, waders, and other monitoring equipment, such as GPS units. In 2006, 28 teachers from 11 Suffolk County school districts learned the curriculum and protocols in a one-week workshop. The teachers used this information to implement the program in their schools.

Another 24 teachers recently participated in the 2007 workshop in preparation for field visits during the academic year. Students in kindergarten through twelfth grade have the opportunity to participate in a range of projects, from collecting basic environmental data as elementary students to taking on more detailed individual projects in high school.

The idea behind the program is that involvement in hands-on, community-wide projects will encourage students to consider careers in science and technology as they are learning how to do authentic research activities. The program also fosters a sense of civic responsibility in the participants. BNL maintains a public database, in which students enter their data, access data from other sites, and conduct analysis related to their property of interest. Through this program, BNL is able to use its intellectual resources and facilities to assist the Long Island community in stewardship of its open spaces.

— Allison Bland

Joseph Rubino D6710507

The first Open Space Stewardship Program celebration, held in May, 2007, was attended by N.Y. Assemblyman Steve Englebright, who congratulated two young scientists on their research.

Roger Stoutenburgh D5950707

Participating teachers in the Open Space Stewardship Program are seen with Office of Educational Progams Manager Ken White (left) and OEP staff member Mel Morris (right).

Building Tomorrow's Workforce Today: High School Programs

Building the science and technology workforce of the future in Long Island, New York, and the United States is a key mission at BNL. Past experience shows that addressing this mission at multiple educational levels is crucial to success. So, every year, BNL's Office of Educational Programs makes sure that about 100 high school students have the opportunity to explore the many aspects of a career in science by getting research experience before choosing their college major. The proximity of BNL offers high school students the chance of becoming familiar with the Lab and working with scientists as early as ninth grade.

Joseph Rubino D4950707

Members of the High School Research Program coordinated by Scott Bronson (left) of the Office of Educational Programs are in front of the OEP building (right) and the new Research Support Building (left).

Minority High School Apprenticeship Program (MHSAP)

The Minority High School Apprenticeship Program (MHSAP) is designed to motivate ninth grade minority students who demonstrate ability and potential in the sciences. Each week of the five-week program focuses on a different area of instruction, including physics, biology, chemistry, meteorology, and environmental science.

Community Summer Science Program (CSSP)

After completing tenth grade, students are eligible for the Community Summer Science Program (CSSP). Local students commute to BNL for lectures and tours given by scientists who provide an eye-opening look at what students can expect from a career in science. Their experience is interactive and hands-on with workshops in biology, physics, chemistry, and environmental science. CSSP provides a stimulating, comprehensive overview for high school science students.

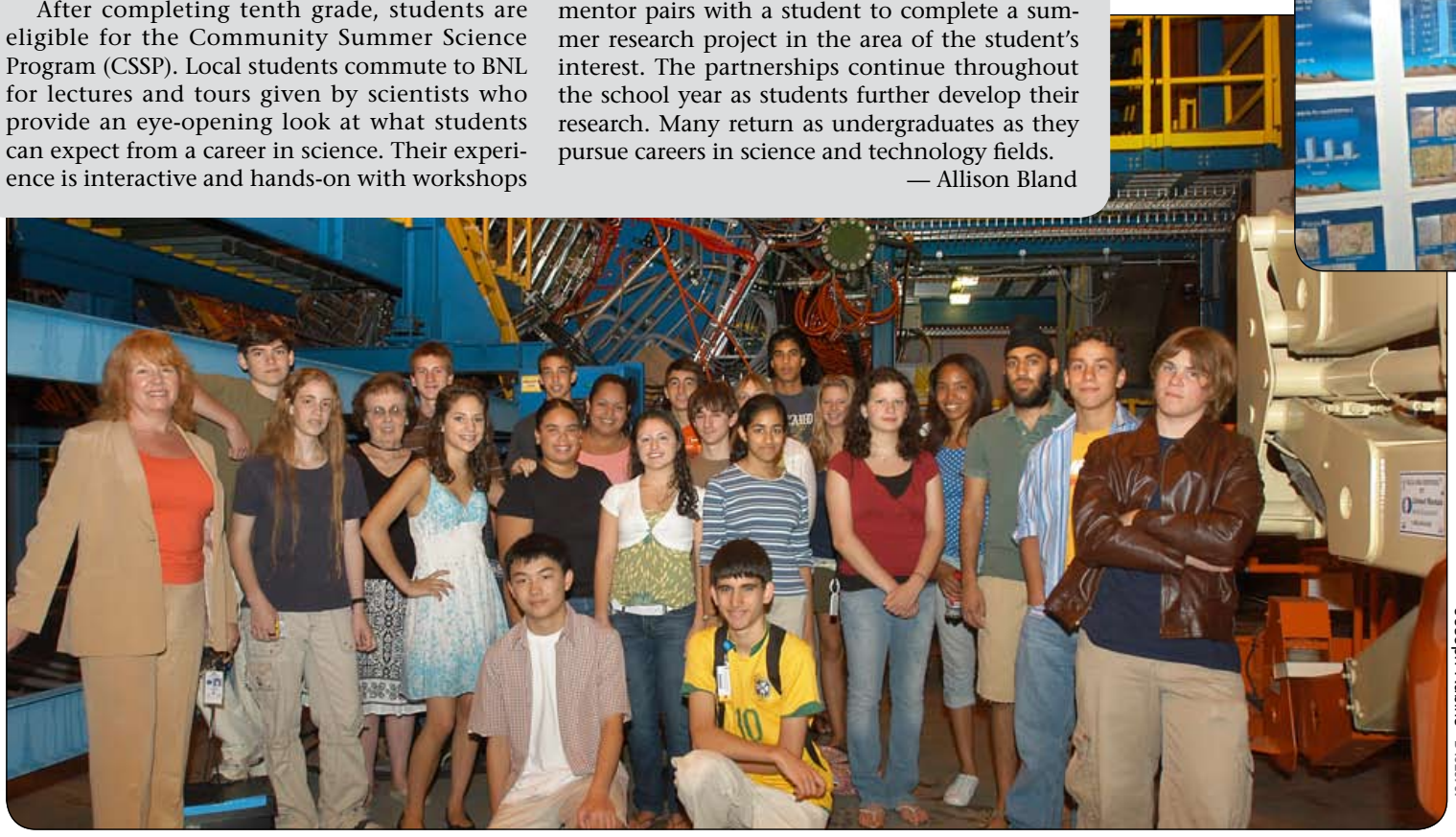
High School Research Program (HSRP)

The High School Research Program (HSRP) is designed for students who have completed CSSP or another advanced science program. A scientist-mentor pairs with a student to complete a summer research project in the area of the student's interest. The partnerships continue throughout the school year as students further develop their research. Many return as undergraduates as they pursue careers in science and technology fields.

— Allison Bland

Joseph Rubino D8000507

(Above) Beverly Agtuca, a tenth-grader in Sachem High School East, first came to BNL as a member of the Open Space Stewardship Program. She is now in the Minority High School Apprenticeship Program, which is coordinated by Noel Blackburn of the Office of Educational Programs. This summer, Agtuca made a poster detailing her study of soil erosion.



Joseph Rubino D4920707

(Left) Photographed in front of the STAR detector at the Relativistic Heavy Ion Collider are participants in the Community Summer Science Program, with Catherine Osieki (left) of the Office of Educational Programs.

BNL, DOE, NYS: Opening Doors to Science, Technology Opportunities

With the support of DOE, BNL is committed to collaborations that bring the Lab's world-class science and facilities to the New York State (NYS) educational community. For years, BNL has used its resources to contribute to the state's science education, providing opportunities for students in math, science, and technology. Providing these opportunities is a goal that BNL shares with other statewide institutions, and partnerships between the Lab and other regional programs have been successful in maximizing the benefits for students involved.

Science, Technology, and Innovation With NYSTAR

New York Foundation for Science, Technology, and Innovation (NYSTAR) has partnered with BNL's educational initiatives. NYSTAR values science and technology research and the state's high-tech resources for their potential to improve economic growth in New York. By supporting science education through BNL's Office of Educational Programs (OEP), NYSTAR is investing in regional students, a valuable resource for New York's future as a leader in science and technology. NYSTAR's contributions create unique opportunities for hands-on student engagement with biotechnology, chemistry, physics, and environmental sciences and enhanced resources for regional math and science teachers. This partnership has benefited thousands of students participating in hands-on programs at the Science Learning Center.

Joseph Rubino D2780106

Middle school students in the New York State Science & Technology Program learn how to extract DNA.

Math, Science, Technology Partnership (MSTP)

The Math, Science, and Technology Partnership (MSTP) program is also focused on improving New York's student performance through educators' achievements in middle school classrooms. Since 2003, BNL and Hofstra University have come together with Stony Brook University to lead MSTP under an $11.5 million grant from the National Science Foundation (NSF). BNL helps to meet MSTP's goals of enhancing and aligning math, science, and technology curricula by offering workshops for middle school teachers. MSTP recognizes that achievement gaps often begin in middle school. The program focuses on integrating math, science, and technology in the classrooms of ten Long Island school districts.

Collegiate Science and Technology Entry (CSTEP)

BNL also partners with the NYS Collegiate Science & Technology Entry Program (CSTEP), which is designed to support academic opportunities for underrepresented and disadvantaged students. The Science & Technology Entry Program (STEP) sets these goals in motion before students enter college. The NYS Education Department runs STEP and CSTEP in conjunction with public and private colleges across the state, which partner with BNL to provide hands-on opportunities for students in the program. BNL offers a mini-course, summer internships, mentoring, and tours for STEP and CSTEP students.

Increasing Diversity in the Workforce

Over some years, OEP's Science Learning Center (SLC) staff has worked with Dowling College to improve minorities' participation in the science and teaching professions. In collaboration with Dowling's Center for Minority Teacher Development & Training, SLC staff work beside minority undergraduate education majors at BNL summer camps, increasing the students' knowledge of scientific concepts and experience with inquiry-based educational activities. Dowling's Gear-Up Program also asked BNL's support in bringing hands-on science activities to their ninth-grade participants for a week this August. The program is designed to strengthen math and science skills and prepare students socially, academically and financially for college. Partners include the Urban League of Long Island, Mentoring Partnership of Long Island, and Wyandanch School District. — Allison Bland

Then & Now — Summer, All-Time Education at BNL

BNL was created as an institution that combined elements of a university, a business, and a government agency. While research remained its main objective, the Lab offered educational programs that allowed students to experience research facilities and interact with scientists.

Early educational programs at BNL for students included a summer program started by health physics in 1949, and in the 1950s, engineering faculty could take 10-week up-to-date courses in nuclear engineering and reactor physics. In 1952, the Lab began its summer student program, in which undergraduate and graduate students lived in barracks on site and completed research projects. Past participants in the summer student program include Nobel laureate Roald Hoffmann and previous Lab Director Nicholas Samios.

Another summer student, Charles Meinhold, came to BNL in 1957 as an Atomic Energy (AE) Commission Fellow from the University of Rochester. He participated in a health physics summer student program which was run for many years by Red Carsten, now retired, who served in the BNL Health Physics Division.

After his internship, Meinhold was offered a regular BNL job, starting after his certification with what was to be a long career in health physics. Among other contributions, he headed BNL's Safety & Environmental Protection Division, 1972-88. Outside the Lab, he served on committees and boards involving radiation safety standards, for example, the National Council on Radiation Protection & Measurements and the International Commission on Radiological Protection, rising to become president of both these institutions.

Says Meinhold, "When I came to BNL as an AE Fellow, I expected to return to Rochester to complete more degree programs. But then the Lab job offer came up. I took it, and never regretted it!"

The longest running educational program at BNL, the summer student program is similar to the present-day Summer Undergraduate Laboratory Internships (SULI) (see story on page 1). In addition, BNL has expanded its educational programs in recent years to serve students in multiple age groups at the local, regional, and national levels (see stories on pages 2 and 3).

Charles Meinhold, an Atomic Energy Commission fellow in a 1957 health physics summer student program, tosses a horseshoe in a typical recreational pastime in the early days at BNL.

Among these programs is the one run by Office of Educational Programs educational specialists at the BNL Science Learning Center, once known as the Science Museum. Learning Center staff host classes of elementary school children, using interactive exhibits and hands-on directed activities at the appropriate grade level to teach magnetism and many other scientific topics related to the school curriculum and to BNL's research. The popularity of this program is easy to measure: it is always fully booked, so that BNL introduces more than 25,000 children to the fascination of science each year.

— Allison Bland and Liz Seubert

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Three-Thumbs-Up Talent Show

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Show pictures by Roger Stoutenburgh

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BNL Office of Educational Programs A to Z

High School Students

STEP - Science & Technology Entry Program

CSSP - Community Summer Science Program

HSRP - High School Research Program

MHSAP - Minority High School Apprentice Program

College & University Students

SULI - Science Undergraduate Laboratory Internship

CCI - Community College Institute

PST - Pre-Service Teachers

FaST - Faculty and Student Teams

GRIP - Graduate Research Internship Program

DHS - Homeland Security Scholars and Fellows

College Mini-Semester

CSTEP - College Science & Technology Entry Program

Teacher Programs

DOE ACTS - Department of Energy Academies Creating Teacher Scientists Program

Elementary & Middle School Students

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BROOKHAVEN NATIONAL LABORATORY

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BNL Wins 2007 Commuter Choice Regional Leadership Award

BNL has won the 2007 Commuter Choice Regional Leadership Award for its numerous programs to encourage ridesharing among 2,600 employees and more than 5,000 visiting scientists each year. The Laboratory was among ten Long Island companies that won awards this year in the regional contest that also includes New York City, Westchester, Rockland and Putnam Counties. The New York Metropolitan Transportation Council sponsors the awards in collaboration with the Metropolitan Mobility Network.

"Brookhaven Lab actively promotes ridesharing among its employees to reduce air pollution and to save gasoline, a non-renewable resource," said Jeff Williams, the Lab's Employee Transportation Coordinator. "Ridesharing saves wear and tear on a vehicle, and, on a personal level, reduces stress and encourages conversation."

About 140 BNLers are members of NuRide, a national program that matches drivers via computer, and offers points for each shared ride, which can be redeemed for gift certificates. BNL joined NuRide about two years ago. During 2006, Lab employees using NuRide took 9,328 fewer commuter trips, reduced their vehicle emissions by more than 101 tons, and reduced their commuting travel by 233,000 miles.

BNL joined the Long Island Commuter Choice Program about three years ago. As participants in the program, Lab employees who rideshare are eligible to use the guaranteed ride service, a program that offers free rides in emergencies to carpool commuters who do not have access to a car. Long Island Transportation Management, a not-for-profit organization that developed the Long Island Commuter Choice Program to help employers bring voluntary commute alternatives to the workplace, finances this amenity.

BNL offers a variety of shuttle van services for employees and visiting guests, including an on-site courtesy shuttle, which provides door-to-door transportation service during working hours around the Lab's 5,300-acre site. On average, the shuttle makes 37 trips transporting 76 passengers per day. Also, a shuttle operates twice daily during workdays, transporting employees and visitors to and from the Ronkonkoma train station, more than 27 miles away. For visitors who live in housing on site, the Lab offers a shuttle that travels twice per week to a local shopping center in Shirley. For more information, see www.bnl.gov/rideshare/.

— Diane Greenberg

Roger Stoutenburgh D4410607

Jeff Williams, BNL's Employee Transportation Coordinator, seen with the Commuter Choice Regional Leadership Award.

Integrated Safety Management

Integrated Safety Management (ISM) is the framework used to help guide all work at BNL, and is a key requirement of BNL's contract with DOE. ISM's five core functions call for the Lab, as well as each employee, to define the scope of work; identify and analyze all hazards; develop and implement controls for those hazards; work within these controls; and provide feedback to improve safety in future work.

BNL is undergoing a crucial ISM review, August 20-31. The auditors are interviewing a wide cross-section of BNL employees. Below are the ninth in a series of general ISM questions for managers, supervisors, and staff. The text below the questions gives examples of processes that may be appropriate as references for understanding the Lab's ISM program.

Question for Managers: How do you ensure that members of your staff understand the work you want them to do?

Question for Staff: How does your manager communicate what is expected of you in your job?

Response: Roles, Responsibilities, Authorities & Accountabilities (R2A2s), work permits, standard operating procedures, strategic planning meetings, pre-job briefings, and one-on-one meetings are all ways of communicating the expectations for job and safety performance. Supervisors and managers are expected to encourage open discussion and continuous communication about safety.

For more information, contact Steve Coleman, Ext. 8705 or coleman@bnl.gov.

Goodbye to CDC Director Deborah O'Neill

Sixteen years ago, the Lab achieved a milestone outside of its respected scientific achievements: the opening of the Child Development Center (CDC), the first newly constructed child care center within the DOE complex.

Childcare Management, Inc. won the contract to operate the facility and Deborah O'Neill was hired as the director. She immediately started caring for the children of BNLers as their "work-time mom." The waiting list for enrollment in the CDC attested to the happy atmosphere and successful nurturing O'Neill set as standards for the center.

O'Neill recently announced her departure from the Lab. "It's time for me to move on to the next phase of my life, but I know that what I will miss the most is the kids," she said. "Each and every one of them has held a special place in my heart. The parents have been supportive and their involvement in the Parent Council has made the CDC one of the greatest child development centers in our area. Of course, none of this would have been possible without the support from Lab management, and especially Sue."

"Sue" is Sue Foster of the Lab's Human Resources and Occupational Medicine Division, who played a major role in establishing the center and is the liaison between the Lab and the CDC. Said Foster, "Since the beginning, Deb has been an integral part of the success of our Child Development Center. She has been at the helm for 16 years, and her dedication and caring personality will be missed by all of us, especially the parents and the children."

The idea of a CDC began in 1980 when the Lab subsidized the initial opening of a child care facility in the basement of a local church, where BNL employees could bring their children to be cared for during work hours. After a few years, that space was no longer sufficient and the Lab employees and management began to think about what could be done to solve the child care issue for its employees and guests. In 1988, with support from then Lab Director Nicholas Samios and Lab management, a committee was formed to assess the need, and in 1990, there was a groundbreaking to begin the construction of an on-site CDC. O'Neill was there when the ribbon was cut, and the facility opened its doors in 1991.

"Hundreds of children have passed through these doors and each and every one of them has touched my life in a special way," she said. "I can never thank the Lab community enough for making my career here an enjoyable one."

— Jane Koropsak

Joseph Rubino D6750707

Families of present and former CDC children are invited to extend their good wishes to O'Neill at a reception to be held on Wednesday, August 29, in the lobby of the Research Support Building, (#400), from 5 to 6:30 pm. Stop in, reminisce about our children and wish her well.

Arrivals & Departures

— Arrivals —

Norman Day ..... C-AD
Lewis Doom Jr. ..... NSLS-II
Deborah Lange ..... HR/OM
Cheryl Werts ..... Plant Eng.
Yucel Yildirim ..... CMP&MS

— Departures —

Arantzazu Cuadra Gascon .. ES&T
Christopher Dawson..... Physics
Sean Mc Ilroy ..... Chemistry
Dimitri Rochman ..... ES&T
Susan Sears ..... CEGPA

BSA Noon Recital, 9/12

Sher, Felcman In Performance

Internationally renowned cellist Richard Sher and gifted pianist Marta Felcman will appear in concert on Wednesday, September 12, at noon in Berkner Hall. Sponsored by Brookhaven Science Associates, the company that manages BNL, the concert is free and open to the public. All visitors to the Lab age 16 and over must bring a photo ID.

A founding member of the Cambridge Chamber Players in Massachusetts, Richard Sher has given concerts in Berlin's Hochschule, London's Wigmore Hall, and Vienna's Beethovensaal, and widely in the U.S.

Marta Felcman has played in Carnegie Hall, and in Vienna, Buenos Aires, San Francisco, Los Angeles, and Philadelphia. In her second CD she performed personal interpretations of music by German composer and pianist Robert Schumann.

Classified Advertisements

Placement Notices

The Lab's placement policy is to select the best-qualified candidate for an available position. Candidates are considered in the following order: (1) present benefits-eligible employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present benefits-eligible employees within the Laboratory; and (3) outside 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. Access current job openings on the World Wide Web at www.bnl.gov/HR/jobs/.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees

Human Resources Representative (A-4) - Requires a Bachelor's degree or equivalent. Progressively responsible experience in HR-related activities is required. Excellent organizational and communication skills, both oral and written, as well as demonstrated attention to detail are required. Expertise in performing complex administrative functions, as well as knowledge of PeopleSoft HR, MS Excel, Word, and Outlook is required. A working knowledge of BNL's Scientific Staff Policy and procedures is highly desirable. Position will support the Office of Scientific Appointments within HR. Advise BNL's scientific departments in administering appointments. Coordinate Scientific Staff appointments and the implementation of Scientific Staff policies with all HR groups. Will also assist the International Services group. Successful candidate will be expected to perform this job with a high level of confidentiality and discretion. Human Resources & Occupational Medicine Clinic Division. Send resume to sobrito@bnl.gov, referring to Position No. NS 4808.

OPEN RECRUITMENT – Opportunities for Laboratory employees and outside candidates.

ASSISTANT SCIENTIST – Requires a Ph.D. in the human factors, industrial engineering, or similar field and at least 5 years experience in the human factors of complex fields. Candidate will be expected to carry out human factors projects and deliver project-specific products and services to customers in accordance with contractual requirements; identify opportunities for expanding programs; and identify the best technical approach to human factors programs. Candidate will be involved in conducting research in the effects of advanced technology on human performance in complex human-machine systems such as nuclear power plants. Under the direction of J. Higgins, Energy Sciences and Technology Department. Send CV to Higgins@bnl.gov, referring to Position No. KH 2506.

TECHNOLOGY ARCHITECT (I-9) - Requires a B.S. in computer science, electrical engineering or Physics. A minimum of ten (10) years expprience in the design and development of Control Systems for Accelerator Control is required. Programming experience with either C++ or JAVA required is required. Proficiency in real time programming, XML, XML-RPC, C, JAVA or C++, scripting such as PERL or Python, data visualization, data archive and retrieval, system monitoring, equipment control, fast feedback and modeling support and UNIX is required. Experience with EPICS, XAL, and web-services is highly desired. Strong communication skills and the ability to work effectively with a diverse group of scientists and engineers are critical. Reporting to the Diagnostics & Controls Group Leader, the Technology Architect will play a primary role in the control system architecture and tools that will be deployed to control and automate the NSLS II. The successful candidate will develop tools and applications and support the design and development of the applications of others. National Synchrotron Light Source II. Send resume to peterespo@bnl.gov , referring to Position No. PE 4658.

RESEARCH ENGINEER II (P-7) – Requires a bachelor's degree in human factors, industrial engineering or similar field and seven years' related work experience in the field of human factors engineering. Specific experience in the human factors of complex fields is desirable. Responsibilities include conducting human factors projects and delivering project-specific products and services to customers in accordance with contractual requirements; identifying opportunities for expanding programs and identifying the best technical approach to human factors programs. Energy Sciences & Technology Department. Send resume to sobrito@bnl.gov, referring to Position No. NS 4488.

REFRIGERATION & AIR CONDITIONING ENGINEER (LG–10) Under minimum supervision constructs, installs, repairs, maintains and operates refrigeration, air conditioning, ventilating and auxiliary and related equipment. Will perform the same work on air compressors and vacuum pumps whether or not associated with the above equipment. Shift workers assigned to Building 600 acknowledge all Laboratory alarms in the control room and make appropriate notifications. Plant Engineering Division. Send resume to tbuck@bnl.gov, referring to Position No. TB 4738.

Blood Drive, 9/13

To replenish Long Island's blood supply, BNL is holding a blood drive on Thursday, September 13, from 9:30 a.m. to 3 p.m. in the Brookhaven Center. Donors must be from 16 to 75 years of age, in good health, and weighing over 110 lbs. Restrictions may apply to individuals from the United Kingdom and Europe. Donors should have photo identification and know their social security number.

To make an appointment, go to www.bnl.gov/HR/BloodDrive. For more information, contact Liz Gilbert, Ext. 2315.

Fidelity Investment Counseling, 8/28

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

Walk to Fund Cancer Research — Walkers Wanted

The annual Walk for Beauty, Walk for Life will be held on Sunday, September 30. The 4/6 kilometer walk through scenic, historic areas of Stony Brook Village raises funds for breast and prostate cancer research at Stony Brook University. BNL has been a sponsor and active participant in the Walk for many years.

BNL would once again like to gather a team to support this great event. A brochure with the registration form, walker sponsor sheet, and driving directions is available at www.bnl.gov/diversity/womansPrograms/default.asp#Walk_for_Beauty or by contacting Joyce Fortunato, Ext. 4229 or mortimer@bnl.gov, or Stasia Ann Scocca, Ext. 3979 or scocca@bnl.gov.

All participants are responsible for their registration and fee of $20 or sponsorship. If you have any questions or would like to help, contact Fortunato or Scocca.

Concert: Commander Cody, Professor 'Louie,' 9/15

Commander Cody and his Band will play on Saturday, September 15, at 8 p.m. in Berkner Hall. They will be joined on stage by Professor "Louie" and the Crowmatix. Sponsored by the BNL Music Club, the event is open to the public. Buy tickets at $25 each at the BERA Store or at the door the night of the show. Visitors to the Lab age 16 and over must bring a photo ID.

Commander Cody (a.k.a. George Frayne) has been playing music for decades. Most notably on his resume is the runaway hit, "Hot Rod Lincoln," recorded by Paramount Records. The song reached the top ten in 1972. The members of the band at that time were billed with legendary musicians such as the Eagles, the Doors, Jefferson Airplane and the Grateful Dead. Today, Cody and his band tour and entertain fans across the country. Current band members include Steve Barbuto, drums and vocals; Rick Mullen, bass; and Mark Emerick, lead guitar and vocals.

Professor "Louie" and the Crowmatix's several recordings include their first CD, *Souvenir, Vol. 1*, released with Levon Helm, on Woodstock Records in 1997. The band's set includes originals and songs by other artists, blending country, folk, and rock and roll. They have opened shows for Taj Mahal, Cyndi Lauper, and The Band.

Hospitality Committee Bus Trip to Bronx Zoo, 9/16

The Hospitality Committee announces a trip to the Bronx Zoo on Sunday, September 16, leaving from the Lollipop House in the apartment area at 9 a.m. and leaving the zoo at 5 p.m., returning to BNL at about 7 p.m. Tickets must be reserved in advance; contact Monique de la Beij, mdelabey@optonline.net or at 399-7656 after 9/3. The cost is $10 per adult and $5 per child 2-12 (under 2s are free). After reserving, pay at: Berkner Hall lobby, Bldg 488, Tuesday, September 11, 10:30-11 a.m., or at the Rec Hall, Wednesday, September 12, 10:30-11 a.m. Buy your zoo admission tickets at the zoo, at $14 per adult and $10 for children ages 2-12. For information about a 20 percent admission discount for BNL employees only, contact Joanna Rula, jrula@bnl.gov.

Motor Vehicles & Supplies

05 FORD FOCUS ZX4 SE - 4 cyl, excl. cond. 4 dr, a/t, a/c, p/w, all airbags, well maint'd. 48K mi. $8,900/neg. 917-658-1234.

03 HYUNDAI TIBURON - 6 spd manual, sports pkg., fully equip., excel. cond., 30K mi. $11,000. Ext. 5149 or 929-0961.

02 FORD EXPLORER XLT - 6 cyl, 4x4, 4dr, a/t, a/c, all pwr, cd radio, rf rck, tow pkg, grille grd, runbrds., excel. cond. 77K mi. $10,000/neg. Ext. 3832.

00 MERCURY ROUSH COUGAR - 6 cyl, 2dr. coupe; all pwr., fr & sd airbgs, lthr, cd; cust rims, sound. 55K mi. $7,495/neg. 901-4756.

98 VOLVO V70 - wagon, excel. cond., a/t, 5 cyl., abs, cd, 8 spkrs., add., r/rack, new tires. 178K mi. $3,800/neg. Ext. 3078.

98 JEEP SAHARA - dk grn/tan, 4.0L auto., ht/st, loaded, never driven snow/beach. 40K mi. $12,500. Ext. 4994 or 332-0240.

98 FORD EXPEDITION XLT - 4WD, 5.4 ltr, 3rd seat, lthr, 6 cd, loaded, immac., KBB val. $8125. 127K mi. $6,700. Rich, Ext. 7294.

97 FORD 4X4 150 - manual 5 spd, ac, stereo, chrome 17" whls, bed liner tool box, mint cond. 129K mi. $4,500/neg. Ext. 8400.

95 CHEV ASTRO CONVERSION - gd. cond., seats 7, 4 capt. chrs., rear seat bed, all pwr., a/t, a/c, new wtr. pump, frnt brks, tire 105K mi. $2,900. 807-0997.

85 COACHMAN CRUSADER CAMPER - 24', slps 6, new h/w htr, mwave, 2-20lb LP, batt., bath w/shwr/tub/toilet, a/c, $2,795/neg. Don, Ext. 7237 or 428-6736.

Boats & Marine Supplies

21' REGAL REGENCY - 185HP Mercruiser I/O freshwater cooled eng., runs well, trailer. $2,250/neg. Joseph, Ext. 3082 or 585-0655.

Furnishings & Appliances

BEDROOM FURNITURE - queen formica, incl. headboard, 2 end tables, dresser w/mirror, blk/grey, $125/obo. Katherine, Ext. 2269.

CRIB - gd. cond., $20. 476-8868.

FUTON - mattress together w/light wooden frame, photo avail. $65. 398- 9179.

LOVE SEAT - $75; computer desk $75; recliner/Rocker $150; twin mattress $50; foldable bed $100, gd. cond. Mamta, Ext. 3639 or 828-6321.

LOVE SEAT SOFA BED, - 58", full size, pink-gray, 8" cushions, $100/obo. 730-3390.

REFRIGERATOR - Hotpoint, side-by-side, 24 cu. ft., $150/obo. Igor, Ext. 5706.

Sports, Hobbies & Pets

BICYCLE - hybrid/rd. mountain, like new, neg. Ext. 2139.

HAMSTER CAGE - glass w/secure screened top; water bottle, wheel, $15. Ext. 4340.

POP-UP TRAILER - 1993, Coleman, slps 6, stove, sink, storage, bike rack, needs new tires, gd. cond., $1,000. 878-2425.

Tools, House & Garden

DRIFTWOOD TABLE - lg., triangular w/ heavy glass top, $50. Ext. 4844.

KITCHEN RENOVATION ITEMS - elect. cooktop, stainless steel sink, faucet fairly gd. cond. b/o. Ext. 4844.

SEARS 8HP 30 - 3 spd. w/rev. golf cart type floating deck, $125. Frank, Ext. 4748.

Farewell Gatherings

DEB O'NEILL - is leavng. All pres. & past CDC kids & families, come say gdbye at RSB, Bldg. 400 Lobby, 8/29, 5-6:3O p.m.

Yard & Garage Sales

ROCKY POINT - Multi Family sale, Friendship Dr., 8/25-26, 9 a.m.- 3 p.m., X Aloma, off Odin, something for all. 849-4705.

Free

28' FIBERGLASS BOAT - 1964 Pearson cabin cruiser, twin eng., runs. 368-1840.

PINE FIREWOOD - cut, not split, seasoned 1 to 3 yrs., sev. cords, local deliv, poss. help load & unload, Ridge. Paul, Ext. 4941.

Wanted

BABYSITTER - afterschool for 5 and 8 yr. old boys in Port Jefferson, driving a must, Russian is a plus. Vika, 828-1847.

HELP TO FIX LIGHTS ON TREE - Someone to PLEASE fix lights on top half of lighted topiary patio tree, NOT a Christmas tree. Linda, 344-2733.

MOPED - running or not, fairly gd. cond., inexpensive. Stephen, Ext. 2575.

PRE-SCHOOLERS UPTON NURSERY - children/grandchildren to attend UNS 3 mornings a wk., start in Sept., must be 3 yrs. old. Ext. 5090.

Lost & Found

LOST - pair rimless glasses. Ext. 7333.

PADLOCK - lost in men's lockroom in gym, a 4-digit brass padlock. Ext. 5351.

For Rent

CORAM - 1 bdrm. apt., priv. grd. level ent., no smkg/pets. $800/mo. Antonietta, 828-8687/252-1829.

MANORVILLE - 4 bdrm. house, part. furn., fin., bsmt., near 495, 12 min. to lab $1,500/mo. Eddy, 681-9120.

MASTIC - 2 bdrm. house, l/r-d/r, kit, 1 bath, w/d in bsmt., no smkg/pets, util. not incl., 1 mo. sec., avail. 9/15/07 $1,350/mo. Ext. 6033 or 516-521-6086.

NEWPORT RICHEY, FL - 2 bdrm. 2 bath condo, 2 pools 2 golf cses, 15 min to beaches. Dec-March, 2 mo. min. disct for 4 mo. $1,300/mo./neg. Ext. 2539 or 806-2098.

SHIRLEY - 1 rm., kitnet., full bath, sep. ent., furn., tv, wireless int., all incl., 5 min. to stores/beach., 15 to lab., 1 mo. sec., no smkg/pets $650/mo. Ext. 8321.

WADING RIVER - 1-bdrm. apt., full kit., bath, + elec. & heat. $1,100/mo. 433-6272.

YAPHANK - 2 bdrm. apt., l/r, eik, full bath, util. incl., close to BNL and county bldgs., no pets/smkg, 1 mo. sec. and ref. req. $1,000/mo. Hank, 516-551-1901.

Calendar

— WEEK OF 8/27 —

Monday, 8/27

IBEW Meeting

6 p.m. Centereach Knights of Columbus Hall, 41 Horseblock Road, Centereach. A meeting for shift workers will be held at 3 p.m. in the union office. The agenda includes regular business, committee reports, as well as the president's report.

Thursday, 8/30

***Defensive Driving, Part II**

6-9:15 p.m. 2nd half of course. $38. Contact Ed Sierra, 821-1013.

Friday, 8/31

Yankees vs. Tampa Bay

4 p.m. Brookhaven Center. Bus leaves for Yankee Stadium, departs for BNL after the game or 11 p.m. All are welcome. Tickets are $44 each, Tier Box. Make paid reservations at the BERA Store, weekdays, 9 a.m.-3 p.m. Tickets are non-refundable.

— WEEK OF 9/3 —

Mon. & Tues., 9/3 & 4

Holiday, Lab Closed

On Monday, 9/3, and Tuesday, 9/4, the Lab will close for the Labor Day holiday and a floating day holiday. No Bulletin will appear on Friday, 9/7.

Thursday, 9/6

Demos of Latest GIS, CAD Plotting

11 a.m.-2 p.m. Berkner Hall Lobby. Eberhard Systems, L.I.'s original AutoCAD dealer for 25 years and a premier VIP Platinum Hewlett Packard dealer, will demonstrate the latest in GIS and CAD plotting with the all-new T1100 and the Z6100. Stop by to speak to professionals about your plotting and CAD needs. For more information, contact Jeff Giodano, 862-1192.

— WEEK OF 9/10 —

Wednesday, 9/12

***BSA Noon Recital: Sher, Felcman**

Noon. Berkner Hall. Internationally renowned cellist Richard Sher and gifted pianist Marta Felcman will appear in concert. The event is free and open to the public. All visitors to the Lab age 16 and over must bring a photo ID.

Thursday, 9/13

***Blood Drive**

9:30 a.m.-3 p.m. Brookhaven Center. Your gift of life is greatly needed. To make an appointment, go to www.bnl.gov/HR/BloodDrive. For more information, see the notice above, left, on this page, or contact Liz Gilbert, Ext. 2315.

Saturday, 9/15

***Cody, 'Louie' in Concert**

8 p.m. Berkner Hall. Commander Cody and his Band, and Professor "Louie" and the Crowmatix. Sponsored by the BNL Music Club, the event is open to the public. Buy tickets at $25 each at the BERA Store or at the door on the night of the show. Visitors to the Lab age 16 andover must bring a photo ID. See notice above, left.

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

the Bulletin

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Liz Seubert, editor
John Galvin, reporter
Roger Stoutenburgh, photographer

On the Web, the Bulletin is located at www.bnl.gov/bnlweb/pubaf/bulletin.html. A calendar listing scientific and technical seminars and lectures is found at www.bnl.gov/bnlweb/pubaf/calendar.html.

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