



Roger Stouenburgh D1220609

Brookhaven biologists Subramanyam Swaminathan (left) and Rakhi Agarwal.

## How Botulism Paralyzes Nerve Cells: New Details

New structures of botulism toxin interacting with a mimic of the nerve-cell protein it destroys suggest new ways to block this often-fatal interaction. Indeed, the mimic molecules have such high affinity for the toxin and bind to it so tightly that they themselves could possibly serve as anti-toxin drugs with further modification, the researchers said.

The atomic-resolution structures were made at BNL in collaboration with scientists from the U.S. Army Medical Research Institute for Infectious Diseases, and were published in the July 2009 issue of *Nature Structural & Molecular Biology*.

This research was funded by grants from the Defense Threat Reduction Agency/Joint Science and Technology Office for Chemical and Biological Defense, U.S. Department of Defense. Data were measured at the National Synchrotron Light Source (NSLS) which is supported by the Office of Biological and Environmental Research and Office of Basic Energy Sciences within the DOE Office of Science.

### Botulism Toxin Dangers

Botulism toxins are among the deadliest known poisons. Minute quantities in improperly canned goods can cause a fatal form of food poisoning. Recently, some forms have been used in medical settings to smooth facial wrinkles and to quell bladder spasms to stem urinary leakage. But fear of their use as a bioterror weapon has made the toxins notorious — and the push for developing antitoxin drugs or vaccines a high priority.

The toxins come in seven distinct varieties, but all work the same way: One portion of the toxin binds to a nerve-cell membrane; another portion moves a smaller “catalytic domain” into the cell; then this catalytic domain binds to and cleaves a nerve-cell protein, making it impossible for the nerve cell to “fire,” or send signals. The result is paralysis — and often, death.

### Studying the Toxins

“This study looked specifically at how the catalytic domain of one type of neurotoxin, neurotoxin F, recognizes and binds to its target nerve-cell protein to perform this final, paralyzing step,” said Subramanyam Swaminathan of BNL’s Biology Department,

who led the research team. Co-authors with Swaminathan on the study are: Rakhi Agarwal, BNL Biology; and James Schmidt and Robert Stafford, both of the U.S. Army Medical Research Institute for Infectious Diseases.

The team first synthesized two different mimics of the target nerve-cell protein. They then allowed each to bind to the catalytic domain of the toxin, and analyzed the structures using high-intensity x-rays at NSLS beamlines X29 and X12C. Analyzing how the x-rays bounce off the structure allows scientists to reconstruct extremely high-resolution, 3-D images showing the positions and relative orientations of the atoms making up the proteins.

### Primary Findings

“Our structures reveal that portions of the toxin that are distant from the ‘active site’ that cleaves the nerve-cell protein are crucial to the toxin’s ability to bind to and destroy this protein,” Swaminathan said. Biochemical analysis confirmed the existence and importance of these “exosites,” further validating the crystal structures.

“Because these exosites play such an essential role in the toxin’s ability to bind to and cleave the nerve-cell protein, they could serve as additional targets for the development of drugs designed to interfere with the toxin’s deadly action,” Swaminathan said.

### Inhibitors as Vaccines

The scientists are also exploring the possibility that the inhibitor molecules they used in this study as mimics for the nerve-cell protein could themselves serve as anti-toxin drugs.

“These inhibitors are attractive candidates for anti-botulinum drug development,” Swaminathan said. “To do this, we’d need to find a way for the inhibitor to reach the toxin inside nerve cells.” One possibility would be to add a transmembrane sequence or some other means of intracellular transport to the inhibitor molecule.

Work on all seven variations of the toxin is essential to understanding common mechanisms that may aid in the design of drugs that work across several different types, or ideally, broadly against all seven.

See *Botulism Findings* on pg. 2

## University of Maryland President Hrabowski Talks on ‘Beating the Odds,’ 9/3

Freeman A. Hrabowski, III, President of the University of Maryland, Baltimore County (UMBC), will give a talk on “Beating the Odds: Preparing Students from All Backgrounds for Research Careers in Science & Engineering,” on Thursday, September 3, at 10 a.m. in Berkner Hall. All the Lab community is encouraged to attend this talk, which is also open to the public. Visitors to the Lab of 16 and over must carry a photo ID.

Rapid and dramatic demographic and technological changes present U.S. colleges and universities with enormous challenges for educating and preparing students — particularly minority students — for research careers in science and engineering (S&E) in the new century. Hrabowski has spent much of his professional career in studying minority student achievement, focusing special attention on the underrepresentation of minority students, particularly African Americans, in science and engineering. A key outcome of his efforts was the creation in 1988 of the Meyerhoff Scholars



Program for high-achieving minority students in science and engineering (S&E) fields at UMBC. As a result of the Meyerhoff Scholars Program, now recognized as a national model for preparing minority students in S&E fields, UMBC, a predominantly white university, is now among the leading producers of minority graduates who go on to earn S&E Ph.D.s.

Hrabowski will discuss his research on minority achievement, focusing special attention

on the UMBC experience and his research on the Meyerhoff Program’s effectiveness and institutional best practices.

Hrabowski’s honors include being named a Fellow of the American Association for the Advancement of Science and being elected to the American Academy of Arts & Sciences and the American Philosophical Society. He was named one of America’s Best Leaders by *U.S. News & World Report* in 2008; and received the McGraw Prize in Education; the U.S. Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring; and the Columbia University Teachers College Medal for Distinguished Service. He was named Marylander of the Year by the editors of the *Baltimore Sun* and was listed among Fast Company magazine’s first Fast 50 Champions of Innovation in business and technology.

In addition to authoring numerous articles, Hrabowski has coauthored two books, *Beating the Odds* and *Overcoming the Odds* (Oxford University Press), which

See *Hrabowski Talk* on pg. 2

## BNL Scientist Leads Five-Month Study Of Clouds To Improve Climate Models

Andy Vogelmann of the Environmental Sciences Department recently served as principal investigator for a first-of-its-kind, long-term, aircraft cloud sampling campaign, held in Oklahoma as part of the Atmospheric Radiation Measurement (ARM) Program within the DOE Office of Science, which funds the research. The five-month study was dubbed RACORO — Routine AAF (ARM Aerial Facility) Clouds with Low Optical Depths Optical Radiative Observations. The campaign will provide researchers with a statistically relevant data set of low boundary-layer clouds and aerosols for future study.

Coordinated with the AAF, flights were conducted out of the Guthrie and Ponca City airports. Team members aboard a Center for Interdisciplinary Remotely-Piloted Aircraft Studies (CIRPAS) Twin Otter logged 59 flights and 259 research hours between January and June above the ARM Climate Research Facility’s Southern Great Plains site in Oklahoma. During most of June, the National Aeronautics and Space Administration (NASA) King Air B200 also flew above the Twin Otter to obtain complementary measurements of aerosol and cloud microphysical properties.

Boundary-layer clouds are very important to understanding climate variations and climate change, but are often poorly simulated in climate models. The field program measured cloud properties like water content and water droplet size, which determine the amount of light that is



Photo: Chuck Long, Pacific Northwest National Laboratory

Beneath the wing, BNL’s Andy Vogelmann (left) talks with Haf Jonsson, Chief Scientist, for the CIRPAS Twin Otter research plane.

transmitted or reflected by the cloud, a key component in modeling the earth’s climate. The team expects to build a statistical picture of these cloud fields that will be used to improve their representation in climate models.

“This long-term campaign enabled sampling of a sweeping variety of low-level cloud conditions, which was precisely the goal of the program,” said Vogelmann. “Over the months, we encountered stratus, cumulus, and finally cumulus towers as the summer months started to heat up. Comprehensive aircraft measurements were made of the clouds’ microphysical properties, radiative fields, aerosol properties, and atmospheric state.”

According to Vogelmann, this statistical picture for different cloud states will help improve the scientists’ understanding of the physical processes that operate within these clouds and control where they occur and how

long they live so that their representations can be improved in climate models. He added, “These data will also be used to improve methods that remotely observe cloud properties from surface radiometers and satellites, which are essential for obtaining the type of long-term observations needed for cloud and climate studies.”

For example, a recent experiment led by BNL’s Dong Huang is one such method. To scan a large area in a short time, Huang’s team used a novel “cloud tomography” approach to reconstruct three-dimensional cloud structure, using multiple microwave sensors to scan clouds from several distinct ground locations. The interior structure can then be inferred from the resultant radiometric measurements using sophisticated algorithms.

The RACORO campaign was an experiment in itself, in terms of conducting extended operations of this kind in

See *Cloud Study* on pg. 2



CALENDAR  
OF LABORATORY EVENTS

- The BERA Store in Berkner Hall is open weekdays from 9 a.m. to 3 p.m. For more information on BERA events, contact Andrea Dehler, Ext. 3347, or Christine Carter, Ext. 2873.
- Additional information for Hospitality may be found at [www.bnl.gov/hospitality/calendar.asp](http://www.bnl.gov/hospitality/calendar.asp).
- The Recreation Building #317 (Rec. Hall) is located in the apartment area.
- Events flagged with an asterisk (\*) have an accompanying story in this week's Bulletin.

— REGULARLY —

Weekdays: Free English for Speakers Of Other Languages Classes

Beginner, Intermediate, Adv. classes, various times. All welcome. Learn English, make friends. See <http://www.bnl.gov/esol/schedule.asp> for schedule. Jen Lynch, Ext. 4894

**Mondays: BNL Social & Cultural Club**  
Noon-1 p.m., Brookhaven Center, South Room, free beginners dance lessons. Rudy Alforque, Ext. 4733, [alforque@bnl.gov](mailto:alforque@bnl.gov)

**Mondays & Thursdays: Kickboxing**  
\$5 per class. Noon-1 p.m. in the gym. Pay as you go. Ext. 8481

**Mon., Thurs., & Fri.: Tai Chi**  
Noon-1 p.m., B'haven Cntr N. Rm. Adam Rusek, Ext. 5830, [rusek@bnl.gov](mailto:rusek@bnl.gov)

**Tuesdays: BNL Music Club**  
Noon, B'haven Center, N. Room. Come hear live music. Joe Vignola, Ext. 3846

**Tuesdays: Knitting Class**  
Will resume in September. 2-4 p.m. Rec. Hall. All levels of skill. Ext. 5090 for information.

**Tuesdays: Toastmasters**  
3 monthly meetings: 2nd Tuesday: Noon, Berkner, Rm. D. 1st & 3rd Tuesdays, 5:30 p.m., Bldg. 463, Rm 160. Guests, visitors welcome. <http://www.bnl.gov/bera/activities/toastmstrs/>

**Tue., Wed. & Thurs.: Rec Hall Activities**  
5:30-9:30 p.m. General activities, TV, ping pong, chess, games, socializing. Christine Carter, Ext. 5090

**Tuesdays & Thursdays: Jiu Jitsu**  
6:30-7:30 p.m. Tuesdays: Brookhaven Center, Thursdays: Gym. All levels, 6 yrs. to adult. \$65 per month or \$10/class, pay as you go. Tom Baldwin, Bldg. 452, Ext. 4556

**Tuesday & Thursday: Aqua Aerobics**  
Will resume in September. 5:30-6:30 p.m., Pool. Registration is required. Ext. 2873

**Wednesdays: On-Site Play Group**  
10 a.m.-noon. Apartment area playground. Infant/toddler drop-in event. Parents meet while children play. Restarts 9/10. Petra Adams, 821-9238

**Wednesdays: Ballroom Dance Class**  
To be resumed in September

**Wednesdays: Yoga**  
Noon-1 p.m., B'haven Center. Free. Ila Campbell, Ext. 2206, [ila@bnl.gov](mailto:ila@bnl.gov)

**1st Wednesday of month: LabVIEW**  
1:30-3 p.m., Bldg. 515, 2nd fl. Seminar Rm. Free technical assistance from LabVIEW consultants. Ext. 5304, or Terry Stratoudakis, (347) 228-7379

**Thursdays: BNL Cycletrons Club**  
Noon-1 p.m., First Thurs. of month. Berkner, Rm. D. Toni Hoffman, Ext. 5257

**Thursdays: Reiki Healing Class**  
Noon-1 p.m., Call for location. Nicole Bernholz, Ext. 2027

**Fridays: BNL Social & Cultural Club**  
Noon-1 p.m., B'haven Center, S. Room, free beginners dance lessons. 7-11:30 p.m. N. Ballroom, Dance Social, workshops. Rudy Alforque, Ext. 4733, [alforque@bnl.gov](mailto:alforque@bnl.gov)

**Fridays: Family Swim Night**  
5-8 p.m. BNL Pool. \$5 per family

**Fridays: Family Gym Night**  
5-8 p.m. Family gym activities. Free

BNL Food Drive



Food Drive bins are waiting for your generous donation in many buildings on site, including Bldg. 400 lobby and near the Mail Room in Bldg. 179.

Botulism Findings on pg. 2

Swaminathan's group has studied six of the seven varieties. "The mere existence of a vaccine or anti-toxin drugs would help mitigate the extreme fear of a bioterror attack," Swaminathan said.

Understanding the detailed structures of the toxins and how they interact with their target proteins could also lead to advances in the ways they can be used safely in a medical setting.

— Karen McNulty Walsh

In Memoriam

**Michael Perrier**, who joined the Lab on July 1, 1947, with the life number of 237, and retired as a rigger group leader in the Plant Engineering Division on May 30, 1980, died on September 22, 2007. He was 92.

**Glenn Booman**, who joined the Lab's Department of Nuclear Energy on April 19, 1978, as a chemist, and retired on November 25, 1985, died on January 18, 2009. He was 79.

**Stephen Gracia**, who joined the Central Shops Division on January 21, 1957, as a machinist, and became a tool and instrument maker in May 1984, died on April 12, 2009, at the age of 77. He retired on September 30, 1993.

**Seymour Fink**, who joined the Department of Nuclear Energy as a technician A on January 27, 1958, and retired from the Department of Applied Science as a senior technical associate on April 30, 1986, died at 84 on May 19, 2009. He had continued as a research collaborator 1986-1989.

**Louis Morris**, who joined the Plant Engineering Division on December 16, 1955, as a janitor, and moved to the Central Shops Division in 1982 as a helper A, died at 85 on June 12, 2009. He retired from the Lab on November 1, 1985.

**Harold Klein**, who joined the Purchasing Division on September 17, 1979, as a senior staff assistant, and retired from the Lab on November 21, 1986, as a cost and price analyst, died on June 19, 2009. He was 87.

**Gary Smith**, who joined the Physics Department as a design engineer III on March 1, 1965, and retired from the Collider-Accelerator Department as a research engineer I on June 26, 2003, died at the age of 54 on July 16, 2009.

**Richard Hildenbrand**, who came to the Lab on December 5, 1955, as a technician C, and retired from the Alternating Gradient Synchrotron Department as a technical associate I on October 13, 1989, died on July 17, 2009. He was 78.

**John Gould**, who joined the Physics Department as a digital systems engineer II on February 7, 1966, and retired from the Collider-Accelerator Department as a senior technical architect on October 31, 2007, died at 74 on July 18, 2009.

AdoptaPlatoon Fundraiser

For a future AdoptaPlatoon fundraiser, please drop off donations of books, CDs, and DVDs at the front desk, Occupational Medicine Clinic, Bldg. 490.

Arrivals & Departures

— Arrivals —

**Anthony Di Lieto** ..... C-AD  
**Feng Gao** ..... NSLS-II  
**Darren S. Hillis** ..... C-AD

— Departures —

**Selamnesh Nida** ..... C-AD  
**Shrihari Gopalakrishna** .... Physics

MIT Graduate Connie Yee Wins Renate Chasman Scholarship

Connie Yee, who graduated from Massachusetts Institute of Technology (MIT) with a B.S. in mechanical engineering, has won the 2009 Renate W. Chasman Scholarship for Women. Brookhaven Women in Science, a not-for-profit organization at the BNL, offers the scholarship to qualified candidates annually to encourage women to pursue careers in science, engineering or mathematics. Yee plans to pursue studies in operations research at Columbia University this fall.

Named after the late Renate Chasman, a renowned physicist who worked at Brookhaven, the \$2,000 scholarship is awarded each year to a re-entry woman — one whose college education was interrupted, but who has returned to pursue a degree on a half time or greater basis.

"My father used to work on the Relativistic Heavy Ion Collider at Brookhaven Lab," Yee said. "During the Lab's annual Summer Sunday tours, my brother and I were fascinated by the immense facilities, especially the gigantic accelerators and groundbreaking research. These weekend visits were instrumental in inspiring my high school and college science studies, particularly in physics. This scholarship will be my everlasting connection to Brookhaven Lab, to renowned women scientists and to my continued scientific studies."



Roger Stouenburgh 10490809

Brookhaven Women in Science board members Loralie Smart (left) and Vinita Ghosh present the Renate W. Chasman Scholarship to Connie Yee, a Massachusetts Institute of Technology graduate who will pursue graduate studies at Columbia University this fall.

After earning her B.S. from MIT in June 2008, Yee landed a job as a systems analyst at FX Alliance, a provider of automated trading solutions for currency exchange.

"To my dismay, financial hardship stalled my goals of furthering my education beyond my undergraduate degree for the last year," Yee said. "Real-world experience has broadened my horizons and helped map out my career path, but I have an intense yearning to resume my studies. The Chasman Scholarship will help me to continue my studies to earn a master's degree from Columbia University."

Yee hopes to pursue a career in operations research, also known as management science — a field that uses advanced analytical techniques to make decisions and solve problems. Yee wants to develop mathematical and statistical models for engineering systems. In addition, she would like to use her expertise to maximize productivity and optimize efficiency on both the management and technical levels for future employers.

— Diane Greenberg

Cloud Study from pg. 1

...unpredictable weather. For example, between January and March it was unusually dry and several degrees warmer than average, with 20 to 40 percent of average precipitation and drought throughout much of the southern United States. The lack of moisture resulted in fewer cloudy days than expected at the start of the operation, but conditions transitioned to more spring moisture and the flight hours ramped up significantly in April and May. In fact, the conditions in May resulted in some of the best cloud cases of the period.

"There is no way we could have pulled off this long of a campaign without a lot of people stepping up to the plate," said Vogelmann. "This includes the steering committee and especially the people at the site: the aerial facility and the Twin Otter teams."

Vogelmann also emphasized the outstanding skill and dedication of the program's forecasters. "They live in the area, so in addition to what the forecast models show, they provided local insight to the science team, based on their personal experiences with the weather. We relied on our forecasters to provide an integrated



BNL's Andy Vogelmann (center, fifth from left) and some other team members of the cloud mapping campaign are seen in front of the aircraft they used, the CIRPAS Twin Otter.

view from the different models, particularly in the tricky storm season when subsequent forecast model runs could be very dissimilar and storms could develop rapidly — conditions we certainly wanted to avoid putting our pilots into," explained Vogelmann.

Using surface sensors, the ARM Climate Research Facility has been collecting cloud data for 17 years at its Southern Great Plains site near Lamont, Oklahoma. This site was chosen for the RACORO campaign because there is a wide range of cloud types, including low-level thin clouds that were the focus of the project, and

ARM's state-of-the-art surface sensors for remotely observing cloud properties.

Details about the campaign's scientific objectives, measurements, and operations are available at the RACORO website (<http://acrf-campaign.arm.gov/racoro/>). A connection with the Discovery Channel also led to a blog about the campaign during its last month of flight operations in June. Available on the EarthLive website, the Skinny on Thin Clouds blog includes additional insights into daily life during an aircraft field campaign.

— Kay Cordtz

See Hrabowski Talk on pg. 1

...focus on parenting and high-achieving African Americans in science. Both books are used by universities, school systems, and community groups around the country.

Hrabowski serves as a consultant to the National Science Foundation, the National Institutes of Health, the National Academies,

and universities and school systems nationally. He serves on the boards of many institutions that include the Carnegie Foundation for the Advancement of Teaching, the Alfred P. Sloan Foundation, the France-Merrick Foundation, The Urban Institute, and chairs the Marguerite Casey Foundation Board. He served on the board of the Maryland Humanities Council as both a member and chair.

Born in 1950 in Birmingham, Alabama, Hrabowski graduated at 19 from Hampton Institute with highest honors in mathematics. At the University of Illinois at Urbana-Champaign, he earned his M.A. in mathematics, and, four years later, at age 24, his Ph.D. in higher education administration and statistics.

— Liz Seubert



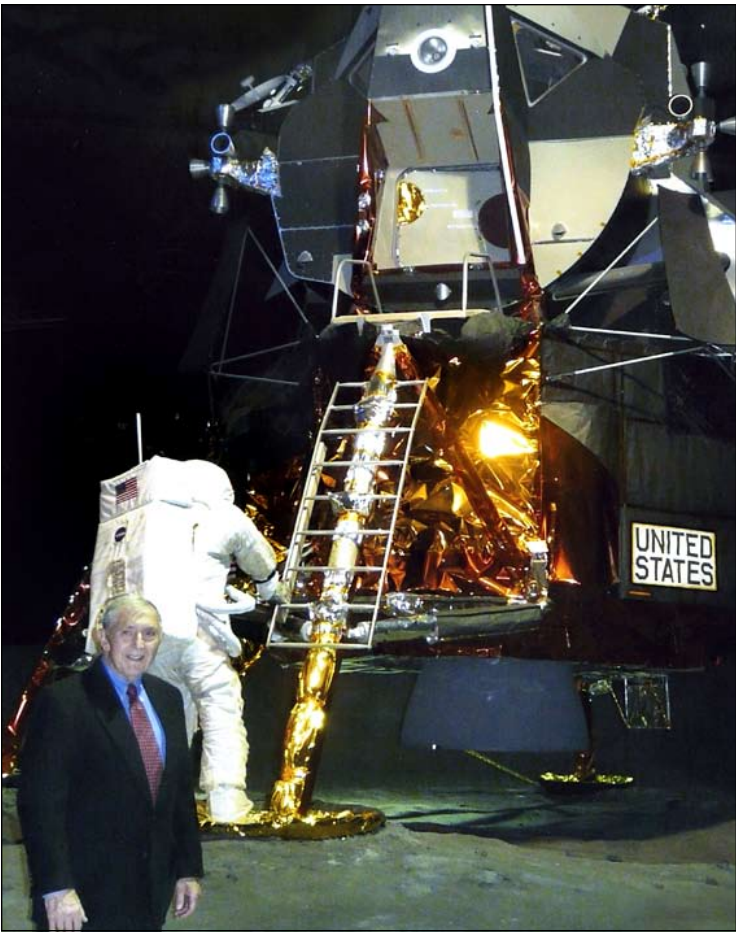
# Blueprint Project Update

In the Monday Memo of August 17, Laboratory Director Sam Aronson and Blueprint Project Manager Erik Johnson reported on the Blueprint Project as follows:

As discussed during the all-hands meeting last month, we are moving ahead with the Blueprint Project. Project coordinators have been appointed and most have formed working groups and started meeting. These working groups have been asked to begin developing the case for their project — identifying the benefits, barriers, required resources, and schedule to implement that piece of the Blueprint. This was the topic of a first meeting of all the coordinators last week, and we will review our progress during a management retreat scheduled for September 1 and 2.

We’ve now posted several responses to the feedback provided through the Blueprint Project web site — see <http://intranet.bnl.gov/blueprint/feedback.asp>. We are finding the feedback very useful and are incorporating new ideas into the Blueprint as we continue to develop it. Please continue to participate by posting new comments or responding to the comments/responses you find there.

Archives of the on-line publication, Monday Memo, are at <http://intranet.bnl.gov/memo/>.



Look — it’s another BNL community member who was involved in the first lunar landing 40 years ago! Frederick A. Zito, who earned a Ph.D. from New York University and an Ed.D. from Dowling College, and holds two U.S. patents and two U.S. copyrights, worked at the Upton site in the late 1970s and early 1980s as a DOE senior project engineer. Prior to that, however, he worked for the National Aeronautic and Space Administration — NASA — as a liaison to Grumman to help develop a guidance and navigation system for the lunar modules, the spaceships that carry astronauts from the command module to the moon’s surface. He also oversaw the system’s installation in the actual lunar module that astronauts Neil Armstrong and Buzz Aldrin successfully landed on the moon on July 20, 1969. Zito is pictured above in front of a real lunar module at the Long Island Cradle of Aviation Museum on July 25, 2009, during a dinner held in honor of the 40th anniversary of Apollo 11. Several hundred retired Grumman employees who worked on the Apollo project attended the event, which included addresses from Astronaut Rusty Schweikert and Joseph Gavin, Grumman vice president for the Apollo project.

## Lab Community Children, Swim Free!

All Lab community children are welcome to the BNL swimming pool from 2 to 5 p.m., free, during weekdays through Friday, September 4. A parent must be present.

### Swimming Pool, Gym, and Weight Room Fall Schedule

The fall swimming pool schedule will commence on Tuesday, September 9, including the re-opening of all facilities on Saturdays from 10 a.m. to 2 p.m. This schedule also includes the Lab gymnasium and Weight Room.

## Ballroom Dance Lessons Re-Start, 9/9

Three new six-week sessions of weekly ballroom dance lessons, sponsored by the BNL Ballroom Dance Club and given by instructor Giny Rae at a cost of \$30 per person for each session, will start on Wednesday, September 9. The new schedule is as follows:

Beginner ONLY hustle lessons, 5:15-6:15 p.m.; intermediate foxtrot lessons, 6:15-7:15 p.m.; and intermediate tango 7:15-8:15 p.m. Classes are held

in the North Ballroom of the Brookhaven Center. Lessons are open to all BERA members: BNL employees, retirees, official BNL visitors and their immediate families (spouse and children). Each BERA member may bring a partner, but a partner is not necessary to participate.

For more information, contact: Donna Grabowski, Ext. 2720; John Millener, Ext. 3853; or Kathleen Tuohy, Ext. 3845.

## BNL Statement on Marshall Islands

*Editor’s Note: A Newsday article on the history of a 1954 U.S. nuclear weapons test that accidentally exposed Marshall Islanders to radioactive fallout appeared on Sunday, August 23, prompting the following clarification of BNL’s involvement. For more information, contact Mona Rowe, Media & Communications Office, [mrowe@bnl.gov](mailto:mrowe@bnl.gov) or Ext. 5053.*

In 1956, the Atomic Energy Commission (AEC) turned to Brookhaven National Laboratory to continue a program of medical evaluation and care of Marshall Islanders accidentally exposed to radioactive fallout following a U.S. nuclear weapons test at Bikini atoll on March 1, 1954. Brookhaven Lab was not involved in the weapons test.

On that day, according to government reports, the wind shifted unexpectedly toward inhabited atolls just before detonation and the explosion produced higher amounts of fallout than predicted. As a result, Marshallese on the atolls of Utrik, Rongelap, and Ailinginae; American servicemen at a weather station on Rongerik Atoll; and Japanese fishermen on the vessel Lucky Dragon were all exposed to high levels of radiation.

In the aftermath of this disastrous accident, the AEC and Department of Defense dispatched an emergency medical team to the area and then continued follow-up visits. Over the next two years, several Naval physicians from that team joined the staff at Brookhaven Lab, leading to the 1956 AEC request that Brookhaven take over the medical program.

Robert Conard became head of the program, and he and colleagues made trips to the Marshall Islands every year to treat radiation-related illnesses, collect samples for laboratory analyses, and measure radiation levels in the environment. Study results were shared in scientific journals. Twenty years later, when the Department of Energy (DOE) came into being in 1977, Brookhaven was asked to maintain the program under contract to DOE.

The program ended for Brookhaven Lab in 1998. Today, DOE continues to provide annual medical screening to the Marshallese at medical clinics in the Marshall Islands and in the United States.

DOE reports annually to Congress on the health care program for the remaining members of the Marshallese population exposed to radiation resulting from the 1954 Bikini nuclear weapons test.

## BSA Noon Recital, 9/16

The next BSA Noon Recital will be held in Berkner Hall on Wednesday, September 16, featuring pianist Bill McNally. McNally will play works by Beethoven, Schumann, and Hamelin, as well as ragtime pieces, of which he is a prize-winning performer and composer. BSA Noon Recitals are free and open to the public. Visitors to the Lab age 16 and over must show photo ID at the BNL gate.

## Non-Native English Speakers:

### Develop your skill for scientific/technical presentations

The English for Speakers of Other Languages (ESOL) Program Coordinator is available to meet with non-native English speakers who give scientific presentations to give tips on improving delivery. You may work on pronunciation, developing the stress and intonation of English, and preparing the presentation in an audience-friendly way. Feel free to contact Jennifer Lynch, ESOL Program Coordinator, at [jlynch@bnl.gov](mailto:jlynch@bnl.gov) or call Ext. 4894 to make an appointment.



## Memphis Soul Review Band, 9/11

Memphis Soul Review, a seven-piece band featuring local musician Bobby Nathan, will perform on Friday, September 11, at 8 p.m. in the Brookhaven Center. The band recreates Texas rock and blues, and also features rhythm and blues music by artists of the 1960s and 1970s. Dancing is encouraged, and a professional dance instructor will be offering lessons.

Bobby Nathan began playing guitar in 1959. In the 1970s he toured the U.S. with the band Strawberry. In 1976 he formed the band Uptown and played at local disco clubs. In 1979 Nathan and his wife Joanne opened Unique Recording Studios in New York City where he works with many notable artists including Bruce Springsteen, Anita Baker, Joe Cocker, Diana Ross, LaToya Jackson and James Brown. In fact, Nathan was the first to sample James Brown’s screams and Led Zeppelin’s drums.

The seasoned musicians that make up Memphis Soul Review are Bobby Nathan, lead guitar; Ed Terry, lead vocalist; Arno Hecht and Larry Etkin of the Uptown Horns; Joanne Nathan on keys; Gregg “Clutch” Reilly on bass; and James Benard on drums.

Sponsored by the BNL Music and Social and Cultural Clubs, the event is open to the public. All visitors to the Lab 16 and older must bring a photo ID. Tickets for the show are \$16 and may be purchased at the BERA Store, through [www.ticketweb.com](http://www.ticketweb.com), or at the door. For more information, go to: <http://www.bobbynathan.com>.

## CALENDAR

Saturday, 8/29

### Biker BBQ & Family Picnic

Noon. Gazebo. The Cycletrons invite all with an interest in motorcycles to a picnic: burgers, hot dogs, salads, soda, games, raffles, kids’ activities. Tickets are \$10, children of 12 and under are free. Call Tony Arno, Ext. 6153, Charles Gardner, Ext. 5214, John McCaffrey, Ext. 2075.

## — WEEK OF 9/7 —

Monday, 9/7

### Lab Closed for Labor Day Holiday

No Bulletin on 9/11.

Friday, 9/11

### \*Rock/Blues Concert, Dance

8 p.m. Brookhaven Center. Memphis Soul Review will perform Texas rock and blues, rhythm and blues. Tickets are \$16. Visitors to the Lab 16 and older must bring a photo ID. See below, left.

## — WEEK OF 9/14 —

Monday, 9/14

### BSA Distinguished Lecture

4 p.m. Berkner Hall. Arnold Levine, Institute for Advanced Study, who discovered p53, the single most common genetic marker for cancer, will talk on “From Sea Anemone to *Homo sapiens*: The Evolution of the p53 Family of Genes.” The lecture, which is sponsored by Brookhaven Science Associates, the company that manages BNL, is free and open to the public. Visitors to the Lab age 16 and over must bring a photo ID.

Wednesday, 9/16

### \*BSA Noon Recital

Noon. Berkner Hall. Bill McNally of Pianofest will play works by Beethoven, Schumann, and Hamelin, as well as pieces in ragtime. Free and open to the public. Visitors to the Lab of 16 and over must carry a photo ID.

## — WEEK OF 9/21 —

Saturday, 9/26

### Spanish & Flamenco Concert

7 p.m. Berkner Hall. The Sol y Sombra Dance Company will celebrate 500 years of the Spanish Guitar, with guitarists, singers and dancers, and visual works from Latina Artist, Pura Cruz’s “Broken Guitar” series. Sponsored by the BERA Hispanic Heritage Club (BHHC) and grants from the New York State Arts Council’s Decentralization Program, Suffolk County’s Office of Cultural Affairs and a Community Grant from Suffolk Legislator Vivian Viloria-Fisher. Buy tickets from the BERA Store, \$12 now, \$15 at the door. Proceeds will benefit the BHHC’s scholarship fund for high school students.

## No More Gas At On-Site Station

No more gas will be sold by Upton Industries, Inc., the current contractor for BNL’s on-site service station. The station will remain open for small repairs through Monday, August 31, then the station will close. At their new location, which will be the Getty Station, 1823 Middle Country Road, Ridge, they will honor all warranties or guarantees that were given for vehicles they serviced while Upton Industries was at the Lab. They will provide a shuttle service to the Lab if needed.

A new contractor will start operating on November 2, perhaps earlier. In the interim, the site of the service station will be closed for repairs and maintenance. During this time, the Lab community is asked to get gas and have vehicle repairs done off-site.



## 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/](http://www.bnl.gov/HR/jobs/).

To apply for a position, go to [www.bnl.gov](http://www.bnl.gov). Select "Job Opportunities," then "Search Job List."

**LABORATORY RECRUITMENT - Opportunities for Laboratory employees only.**

**MATERIAL HANDLER - TWO POSITIONS - (LG-3, TEMP TO 10/1/09) - Performs a variety of laboring and manual tasks in stores operations such as moving, loading, unloading, sorting and storing of materials. May operate motorized equipment pertinent to stores operations. Keeps stores facilities in neat condition. Procurement & Property Management Division. Apply for Job ID #15008.**

**ASSISTANT STAFF SPECIALIST (A-4) - Requires a bachelor's degree in business or closely related field or equivalent experience. Must be able to demonstrate effective oral and written communication plus solid organizational skills. Proficiency with Microsoft Office including MS Word, Outlook, MS Office Publisher, PowerPoint, and Excel is essential. Must possess a high level of competence in processing information using a personal computer and relevant software, and extensive knowledge of Laboratory practices, policies, and procedures. Strong interpersonal skills are essential for the scope and frequency of internal and external interactions. Knowledge of and experience using website development tools and databases are highly desirable. Will be responsible for: coordinating and directing the daily operation of the U.S. ATLAS Program including the office practices, policies and procedures; providing expertise and support to the U.S. ATLAS Program Manager and Physics Department Chair; serving as the program office liaison responding to routine and more complex issues and inquiries for the U.S. ATLAS Collaboration from 44 outside collaborating institutions, DOE and NSF funding agencies; independently resolving difficult problems in areas such as contract administration, invoices, user appointments, funding, visas, relocation to CERN, etc. Will also be required to collect and analyze program data, and summarize findings on related complex assignments and projects; compile and edit research program reports and distribute them to DOE and NSF representatives. Will prepare for foreign travel. Will organize and attend reviews and meetings. Responsibilities also include maintenance and operation of the program information systems. Will maintain the U.S. ATLAS website, prepares and distribute critical documentation. In the absence of the Program Manager, responds to complex issues and interacts with all levels of Laboratory management, U.S. ATLAS collaborating universities and the funding agencies which are the Department of Energy (DOE) and National Science Foundation (NSF). Physics Department. Apply for Job ID #15018.**

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

**ASSISTANT PHYSICIST-INSERTION DEVICES (S-1) - Will work in the insertion device group for the NSLS-II project and help develop a state-of-the-art magnetic measurement facility, certify various insertion devices and commission those in the NSLS-II storage ring. Will also be expected to help develop the novel insertion devices and commission those in NSLS-II storage ring. This position requires a PhD in physics or a related discipline, two years of postdoctoral experience, knowledge and experience in development of storage ring insertion devices, especially in magnetic design, magnetic measurement, and their effects on beam dynamics, excellent written and oral communication skills, and the ability to interact effectively with a diverse group of scientist, technical staff and users. Knowledge and experience in storage ring accelerator and magnetic measurement for accelerator components and in TOSCA® and/or Radia is highly desirable. Reports to the NSLS-II Insertion Device Group Leader. National Synchrotron Light Source II. Apply for Job ID #15007.**

**POSTDOCTORAL RESEARCH ASSOCIATE - EXPERIMENTAL HIGH-ENERGY PHYSICS - Requires a Ph.D. in experimental high-energy physics. Is expected to**

**play an important role in the LHC physics program at BNL. Research will be on the ATLAS experiment at CERN, Switzerland. BNL is involved in many aspects of the ATLAS experiment. It is an ATLAS Tier-1 computing facility. It is designated as one of the US ATLAS Analysis Support Centers. The Omega Group at BNL has significant responsibilities in ATLAS for liquid argon calorimeter, cathode strip chambers in muon spectrometer, trigger, as well as software development in these systems. For ATLAS upgrade for the super-LHC, the group is leading the upgrade of the liquid argon calorimeter readout electronics, the development Micromegas detector for forward muon system, and is also deeply involved in the design of an all-silicon tracker. There is a strong physics analysis program with focus on the early physics with ATLAS, and search for Higgs and supersymmetric particles. Will be expected to participate in some of these activities. When applying for a position, please add the contact and email address of at least three references in the Reference box located on the application page as references will be requested upon review of application. Under the direction of H. Ma, Physics Department. Apply for Job ID #15020. See NOTE.\***

**POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in chemistry or related field. Experience in one or more of the following areas are desired: pulse radiolysis or flash photolysis kinetic techniques, reaction mechanisms, ionic fluids (preparation, purification, and physical studies), electron transfer reactions, experimental chemical dynamics, and electrochemistry. The project is concerned with fundamental issues of the radiation chemistry and separations chemistry of ionic fluids (ILs) as they relate to the potential use of ILs in systems for the recycling of spent nuclear fuel and closure of the nuclear fuel cycle. Ultrafast pulse radiolysis techniques will be used to identify the reactive intermediate species formed in the radiolysis of ILs and to study their reactivity towards extraction system components and relevant metal complexes, including pre-solvated electron reactivity and dynamics and hold transfer reactions. Under the direction of J. Wishart, Chemistry Department. Apply for Job ID #15021. See NOTE.\***

**POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in nuclear chemistry, separations chemistry, radiochemistry or nuclear science. Experience in a variety of experimental techniques such as nuclear detection methods, preparation and handling of radioactive samples, chemical separations and synthesis and characterization of metal-organic complexes in organic and aqueous media is desired. This program will use diverse chemical measures to study neutrino oscillations and neutrino mass. Currently the group is actively involving in different aspects of neutrino research and participating in several neutrino collaborations: 1) Daya Bay reactor neutrino experiment (Daya Bay); 2) Low Energy Neutrino Spectrometry (LENS); 3) Sudbury Neutrino Observatory (SNO+), neutrinoless double beta decay; and 4) Long Baseline Neutrino Experiment (LBNE at DUSEL). Chemistry plays a role in the development of all of these neutrino detectors, e.g., by developing new high-quality, chemically stable metal-loaded liquid scintillators, M-LS, as neutrino detectors or double-beta decay target, by making the detectors free of radioactivity and chemical contaminants that can obscure the neutrino signal, by building new generation mega-ton Water Cherenkov Detector for neutrino oscillation and by constructing a material compatibility program that will benefit the neutrino community. Under the direction of M. Yeh, Chemistry Department. Apply for Job ID #15022. See NOTE.\***

**POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in chemistry or related field. Experience in one or more of the following areas are desired: pulse radiolysis or flash photolysis kinetic techniques, ionic liquids (preparation, purification, and physical studies), reaction mechanisms, electron transfer reactions, experimental chemical dynamics, or electrochemistry. The project involves the study of charge transfer reactions in ionic fluids (ILs) and their relationship to the interesting dynamical properties of ILs, and the targeted design and synthesis of ILs to test specific aspects of charge transfer kinetics and dynamics. Will perform pulse radiolysis and laser-induced kinetics studies on intermolecular electron transfer reactions involving radicals and other transient species, and prepare and characterize novel ionic liquids conceived for these studies. Under the direction of J. Wishart, Chemistry Department. Apply for Job ID #15023. See NOTE.\***

**POSTDOCTORAL RESEARCH ASSOCIATE - MACROMOLECULAR CRYSTALLOGRAPHY - A 1-year postdoctoral position is available at the X6A beam line at the NSLS, Brookhaven National Laboratory. X6A is funded by the National Institute of General Medical Sciences and it is a dedicated beam line for macromolecular crystallography. Will work with members of the NIGMS X6A team in the development and implementation of X-ray diffraction methods, participate in the structure determination and characterization of metallo-proteins and other projects under development, as well as assist in the support of the X6A User Program. The group has strong links to New York Structural Biol-**

**ogy groups. Required qualifications include a PhD degree and experience in structure determination and background in X-ray diffraction techniques; good communication, organizational and time management skills. Preferred qualifications include experience in protein cloning, expression and purification. Apply for Job ID #15017.**

**RESEARCH RF ENGINEER II (P-7, term appointment) - Requires a bachelor's degree in electrical engineering or equivalent capabilities in electrical engineering or physics, advanced degree preferred and seven years' experience in the design and analysis of high speed analog and digital electronics. Must demonstrate expertise with electronics design analysis tools and laboratory measurement techniques. Must also have the ability to read and create schematics, design circuit boards, test and troubleshoot to the component level. Experience in programming of FPGA based signal processing and Programmable Logic Controllers (PLC's) is highly desirable. Expected to work closely with the senior engineering staff in the design, fabrication and integration of analog and digital RF systems. Working with senior engineers, will be responsible for the development of high speed analog/digital RF circuits including fast RF interlocks and I/Q modulators, creating system schematics and wiring diagrams, overseeing short-run production and the testing and debugging of systems. Ideally, would have experience in the operation of RF test equipment including network analyzers, spectrum analyzers. This position is with the NSLS-II RF group which is responsible for the development of RF systems from 500 MHz to 3 GHz and from low level signal processing (milliwatts) to high power RF transmitters (megawatts). National Synchrotron Light Source II. ERAP Eligible \$1000. Apply to Job ID #15012.**

**APPLICATIONS ENGINEER (I-6) - Requires a bachelor's degree in computer science, business information systems, or a related discipline and a minimum of 3 years developing and programming business applications such as Payroll, Human Resources, Accounts Payable, Purchasing or Inventory at PeopleSoft version 8.0 or higher. Requires demonstrated proficiency in PeopleTools, PeopleCode, SQL development, PeopleSoft workflow; tree structure and report development. Must have excellent working knowledge of business applications. Superior technical and analytical skills are required in addition to possessing excellent communication skills and the ability to work well in a team-oriented environment. Will be responsible for programming business applications and preparing all pertinent application design specifications. Will play a key role in design sessions and successfully troubleshoot most applications problems independently. Will play a lead role in the completion of a phase or component of a project. Business Systems Division. Apply for Job ID #15004.**

**DESKTOP MANAGEMENT ENGINEER/ TECHNOLOGY ENGINEER (I-6) - Requires a bachelor's degree and/or minimum of 3 years experience in advanced desktop administration. Experience in systems management tools (SMS, LanDesk or Altiris) and application packaging and advanced scripting experience (e.g., Wise Installation Studio, Inno Setup, VBScript, Powershell) required. Superior technical and analytical skills, excellent communication and writing skills and the ability to work well in a team-oriented environment a must. Knowledge of Active Directory Group Policy and Preferences and knowledge of Microsoft operating systems, desktop applications and related technologies required. Experience with the Microsoft Operations Framework, ITIL, SQL reporting and virtual desktop infrastructure is a plus. The Desktop Management engineer will configure, deploy, report on and troubleshoot desktop applications and policies, monitor client health issues and analyze trends in client behavior in order to configure the appropriate policies. Information Technology Division. Apply for Job ID #15014.**

**FISCAL SERVICES ASSISTANT (A-2) - Requires a bachelor's degree in finance, business or accounting, and demonstrated proficiency in the Financial Management Assessment Tool, AART and ATS Systems. Must possess knowledge of DOE's requirements related to OMB Circular A-123. Proficiency in Microsoft Office Excel version 2007 as well as PeopleSoft queries required. Knowledge of Microsoft Word, Outlook, and Power Point, Adobe Acrobat and Peachtree Accounting software is required; excellent verbal and written communication skills are essential. Must exercise initiative, good judgment, and function as a team member. Responsibilities will include (but not be limited to): Preparing excel files for input of risk/control data, editing process control narratives for completeness, maintaining all test and fieldwork papers and preparing test results for management's review. Will be responsible for updating the project staff as to status of narrative reviews and test work. Will be required to cross-train in other areas of the Fiscal Division in order to fill-in when staffing levels are low. Will work independently within established procedures and may be required to handle non-routine matters. May have frequent contacts within and outside the Laboratory to exchange information essential to assigned functions. Will assist in other fiscal related areas as needed. Responsible for assisting Fiscal management in the coordination of ongoing**

**financial assessment projects. Fiscal Division. Apply for Job ID #15003.**

**CUSTODIAN - (LG-1) (temporary, reposting) - Under general supervision, performs general cleaning and housekeeping duties in all Laboratory buildings. Site Services Division. Apply for Job ID #14845.**

\*NOTE: BNL policy states that Research Associate appointments may be made to those who have received their doctoral degrees within the past five years.

### Motor Vehicles & Supplies

**06 AUDI A-4 QUATTRO - 53K mi. 3.2L, Black, Showroom cond, many extras, relocating to San Diego. \$23,000 neg. 384-2908.**

**05 JEEP LIBERTY RENEGADE - 41K mi. mint, 4wd, lther, heated seats, s/roof, tinted wndws, cd, air, all pwr. \$16,000. 885-5320.**

**05 CHRYSLER TOURING 300 - 82K mi. black pearl, mint, 6 cyl many extras. \$8,900 neg. Jared, Ext. 4705, 929-4978.**

**99 FORD VAN E150 ECONOLINE - 173K mi. w/shelves/bins, well maint a/c, new tires \$2800 MUST SELL. \$2,800 neg. 312-2670.**

**99 NISSAN SENTRA - 180K mi. manual, new tires/brakes, runs well, side dents, \$1,000 neg. 561-9198 or hhlaing@bnl.gov.**

**99 AUDI A4 1.8T QUATTRO - 97K mi. a/t, ac, am/fm/cd, hted seats, new tires, clean, gd cond. \$4,500 neg. Ext. 3498, 849-2520.**

**98 NISSAN MAXIMA - 123K mi. 5spd std. shift, black w/gray int. p/l, p/w, cloth seats, orig. owner. \$3,500. Ext. 2080, 732-0793.**

**98 HONDA CIVIC DX 4D - 116K mi. new tmg belt/brakes/tires/muffler, manual tr, some dings, gd cond. \$2,000 neg. Ext. 3594.**

**90 BUICK LE SABRE SEDAN - 135K mi. 4 dr. \$400 neg. 325-0928 or rayc@bnl.gov.**

**69 VOLKSWAGON BEETLE - 140K mi. great cond, melon green classic buggie, orig mi, manual tr. \$5,300 neg. Ext. 4289.**

**OIL FILTERS - 6 for Nissan Pathfinder, Sentra, etc, \$1/ea or 6/\$5. Ext. 7505.**

### Boats

**27' CATALINA - '87 Sailboat, ready to sail, mint cond, free slip spce in EH-mptn for seasn, slps 4. \$18,000 neg. Joe Woicik, 773-837-4490.**

### Furnishings & Appliances

**AIR MATTRESS, CHAIRS - Qu size mattress, foldable frme, \$10. 2 Rubber maid folding chs, \$5. Tom, Ext. 7578, 793-4568.**

**BABY'S FURNITURE, CLOTHES - Italia Crib, bassinet, changing table, toddler bed, toys, & clothes, pix avail. irachel@bnl.gov.**

**BROYHILL SOFA - Blue Plaid w/light oak legs, gd cond, \$250/obo. Helen, 849-2382 or hsavage@bnl.gov.**

**DINING ROOM SET - lg Col, seats 8, incl hutch, drk pine, grt cond, pics/size avail, \$300. Linda, Ext. 3750, 672-4141.**

**DRESSER - solid oak, 2 over 2, 42w x 19d x 35h, \$150, photos avail. 878-9020 or sivertz@bnl.gov.**

**JUICER - used twice, excel. cond., incl. recipe bklet. \$15, 591-4267, 7:30 a.m.-3:30 p.m. Tue-Fri.**

**MICROWAVE CABINET - w/storage, wood w/wheels, 52.5hx17.5dx24"w; pic avail, \$35. Ext. 2198, 591-1183 or lysik@bnl.gov.**

### Audio, Video & Computers

**8-BIT NINTENDO NES W/GAMES - Classic NES syst w/light gun & Punch Out, Mario 3, more. Ext. 2122 or jmontalto@bnl.gov.**

**NINTENDO 64 - w/2 controllers, sev. games, Gauntlet Legends, Pokemon Stadium. Ext. 2122 or jmontalto@bnl.gov.**

**QUASAR PALMCDORDER CAMCORDER - new in box, 2.5 color LCD mon, built-in Light w/Digit. Fade, w/access. \$30, 591-4267, 7:30a-3:30p. Tue-Fri.**

### Sports, Hobbies & Pets

**BICYCLE DOG TRAILER - rugged, vinyl wind crv, safety leash, Easy fold/erect. Univ bike hitch, 20" tires, 115 lbs.max. Ext. 5537.**

**DOG CRATE - K-9 Keeper, for dogs up to 70 lbs, 2drs, 36"x23"wx24"h. unused, pad incl, \$60. Ext. 3830, 878-0565.**

**EXERCISE EQUIPMENT - Nordic Rider Dual Motion, \$45. irachel@bnl.gov.**

### Miscellaneous

**DIAMOND RING - Solitaire .65ct, 14K plain gold setting \$950/obo. 516-817-0999 or Lllady007@optonline.net.**

**SPLISH SPLASH TICKETS - Six tickets for water park in Riverhead. \$20 ea. Can buy individually. Susan, Ext. 5979.**

**TICKETS - 3 for David Copperfield at Tilles Center, Wed, Sept 30@8:30pm, great seats! pd/\$250, ask/\$200. Artie, Ext. 5937.**

**TICKETS - Bellport Playhouse 2 tickets, \$40, (\$20/ea.) *Chorus Line* 3rd row center Sept 29, 8pm. Linda, Ext. 7430.**

**TICKETS - 2 *Doo Wop Extravaganza*; Sat, 9/12, Cap. One Bank Theatre, Westbury, orig \$62.95/ea, now \$48/ea. 921-0567.**

### Community Involvement

**FARMERS' MARKET @ MT. SINAI - every Fri at the "Wedge" Heritage park on 25A from 2-6pm, Organic, Fresh, artisan gds, Support Local. Christine, Ext. 5090.**

### Wanted

**ADOPT-A-PLATOON - Monetary donations gratefully accepted towards mailing shipments to military overseas. Thank you! Volunteers are also needed to help with special fund raising events. Joanne, Ext. 8481 or jrula@bnl.gov.**

**BIKE - for adult, will pay \$. 456-1753.**

**BNL FAMILY MEMBERS IN MILITARY - If you have a family member who has been deployed overseas, please contact Adopt-a-Platoon. Joanne, Ext. 8481 or jrula@bnl.gov.**

**CHILDREN'S KITCHEN SET - Looking for used set for a boy. Cindi, Ext. 4495.**

**FIREARMS - wanted old/new, any type/cond, fair \$\$\$ pd. Joseph, Ext. 3783, 487-1479.**

**KNIFE COLLECTOR - I collect all kinds, fair \$\$. Butch, 924-5249.**

**LARGE BASKET DONATIONS - needed for Chinese Auction. Would be appreciated. Donna, Ext. 2826 or donna@bnl.gov.**

### Lost & Found

**KEYS - Lost firealarm keys, 3 rings attached together w/a hook on one ea ring has duplicate keys of the next ring, also bldg keys, C-AD and RHIC bldgs. 344-7802 or heyman@bnl.gov.**

### For Rent

**CABO SAN LUCAS, CA - Mexico, S. Baja, bdrm, 2bath, condo slps 4, wk of Oct 31-Nov 7@ Villa Del Palmar, owner renting, no timeshare presentation. \$600/wk. Thomas, Ext. 5740, 828-4106 or nolan@bnl.gov.**

**SPRING HILL, FL - Gulf Coast Ranch, 70 Orlando, 50 Tampa, fly SW direct. Screen/in-ground pool, fruit trees, 3BRM, 2BTH, DR, fpl, 2x gar - pics. \$500/wk. 344-5537.**

**BELLPORT VILLAGE - lg studio apt incl util, cable, wireless int, pvt. ent, new bath, kitnet area w/stove, str prkg, no smkg/dogs, 1 mo sec + 1 mo rent, \$800/mo. 803-0958.**

**EAST MORICHES - 1 bdrm newly reno bsmt apt., 10 mins to Lab. \$800/mo. 793-3599.**

**HOLTSVILLE - 1 bdrm apt, redone: new paint, bthrm, & floors; priv ent, prk in drv, util incl, no smk/pets. \$850/mo. 289-9727.**

**MASTIC - new furn, 1 bdrm apt, kit/lr combo, full bath, priv ent, quiet area, own thermostat, util incl, nr LIRR, no, 1 mo. sec. \$775/mo. 335-4907.**

**MIDDLE ISLAND - spacious apt.lr,ktn,br bath & deck all appl. w/d, a/c, cable & util. inc. 3 mi. to Lab. \$1,400/mo. Jim, Ext. 2765 or newburgh@bnl.gov.**

**MIDDLE ISLAND - 1 bdrm, l/r, full kit & bath, bsmt apt, incl all, 10 min to BNL, priv. ent/drwy, strictly no smkg/pet, int/phone incl, BNL only, 1 mo sec. \$800/mo. 880-3152.**

**MILLER PLACE - Furn. Colonial house in prof. resid area. TV/internet, cac, own bdrm, 8mi. to BNL, 10mi. to SBU. Incl. all. Responsible non-smoker. \$675/mo. 744-8386.**

**MORICHES - 2bdrm, 2ba, 1150 sq. ft. apt, to sublet Oct-Mar, renewable lease, l/r/dr/kit, w/d in unit, incl heat. \$1,600/mo. Raymond, 344-2356 or rfiller@bnl.gov.**

**RIDGE - 4 bdrm, 2.5 bth Col, kit, d/r, lg l/r, wd stove, fin bsmt, cac, newly reno bth, igs, fen yd, atch gar, oil/hw heat all appl/lawn care srvc incl. \$2,350/mo. 516-707-0069.**

**RIDGE - 1 bdrm, kit, l/r/dr combo, bath, 1 car gar, own drwy, wdburning stove, quiet, 1 mi to Lab, ef/sec, elect/wtr incl. \$1,200/mo. 345-5426, sholaces@optonline.net.**

**ROCKY POINT - 1 bdrm upper unit, kit, bath, l/r, balcy, quiet co-op comm, nr stores, Indry rm on prem, prkg spot, no smkg/pets, CAC, incl. gas/water. \$1,150/mo. 806-5965.**

**SHOREHAM - lg furn 1 bdrm apt w/all appli, l/r, d/r, full kit/bath, a/c, util. incl. no smkg/pets, pvt ent/drwy, use bkyd, sing/cple only, 1 mo sec. \$1,100/mo. Ext. 5263, 375-7959.**

**SHOREHAM - Updated 4bdrm/2ba in SWR schls. Kitch w/ d/w,m/w. Full basemnt, w/d, 1 car gar., lg. priv. bckyd, patio. 4 mi. to Lab. Rent + sec/refs. \$2,200/mo. 678-7602.**

**WEST SAYVILLE - 1 bdrm IMMAC bsment apt, EIK, LR, tile/crpt, new paint, w/d, AC, Cbl/Int., priv ent. No pets/smkg. \$900/mo neg. 750-3835, laurenbuttons@yahoo.com.**

**WESTHAMPTON BEACH - Hampton West Estates 3br,11/2bath, eik, garage, basement, backyard No pets. \$1,400/mo. Garry, 566-2812 or ghubbard@bnl.gov.**

**YAPHANK- fully furn spacious studio apt for one hi spd ent/all util incl, quiet, lovely area 5 min. to Lab, no smkg/pets, avail, 9/1. \$900/mo. 516-205-6712.**

**YAPHANK - newly redec. furn studio apt, clean/bright for 1 pers., all util incl, near Lab, no smkg/pets. \$750/mo. 516-205-6712.**

### For Sale

**BROOKHAVEN HAMLET - 3 bdrm, 2 bath house; l/r w/fp, deck, atch gar, hardwd flrs, dead-end st, near libr/elem sch. \$405,000 neg. Ralph, Ext. 4373 or weston@bnl.gov.**

**SHOREHAM - 4 bdrm., 2.5 bath Col., frml l/r & d/r, den w/fp, fin. bsmt, 12x20 deck, igs, new granite cnters, SWRSD, 7 mi to lab. \$499,000 neg. Ext. 2253, 821-3320.**

Ads for services offered by BNL employees are online at <http://intranet.bnl.gov/adds/displayAdsAll.asp>. They cannot be seen from off site. To get a copy, e-mail [lseubert@bnl.gov](mailto:lseubert@bnl.gov) or call Ext. 2346.