

In a series of articles to appear over the next several weeks, *The Bulletin* will feature some of the BNL research that was presented at the 226th meeting of the American Chemical Society, September 7-11, 2003, in New York City.

Coal-Eating Bacteria May Improve Methane Recovery

This research has been led by Mow Lin, Energy Sciences & Technology Department, who died suddenly on September 12 and will be honored at a memorial gathering at BNL on October 2 (see page 2). Lin's research on coal-eating bacteria is reported as one of the "Developments to Watch," in the *BusinessWeek* of September 29, 2003.

BNL scientists are exploring the use of bacteria to increase the recovery of methane, a clean natural gas, from coal beds, and to decontaminate water produced during the methane-recovery process.

Methane gas, which burns without releasing sulfur contaminants, is becoming increasingly important as a natural gas fuel in the U.S. But the process of recovering methane, which is often trapped within porous, unrecovered, or waste coal, produces large amounts of water contaminated with salts, organic compounds, metals, and naturally occurring radioactive elements.

"Our idea is to use specially developed bacteria to remove the contaminants from the wastewater, and also help to release the trapped methane," said Mow Lin of the Energy Sciences & Technology Department.

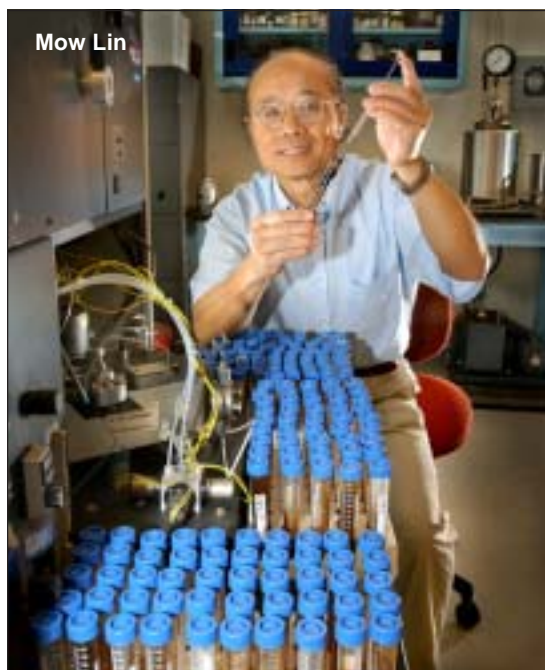
Lin's team has developed several strains of bacteria that can use coal as a nutrient and adsorb or degrade contaminants. They started with natural strains already adapted to extreme conditions, such as the presence of metals or high salinity, then gradually altered the nutrient mix and contaminant levels and selected the most hardy bugs.

In laboratory tests, various strains of these microbes have been shown to absorb contaminant metals, degrade dissolved organics, and break down coal

in a way that would release trapped methane. The use of such microbe mixtures in the field could greatly improve the efficiency and lower the associated cleanup costs of coal-bed methane recovery, Lin said.

Lin's talk was given during the Division of Fuel Chemistry's "Synthetic Clean Fuels from Natural Gas and Coalbed Methane: 30 Years Progress Since the First Oil Crisis" session on Thursday, September 11. This research was funded by grants for high-school and undergraduate student research at BNL from BSA and DOE's Office of Science.

— Karen McNulty Walsh



Mow Lin

Roger Sloutenburgh D0020803b

Using GVG to Treat Addiction



Stephen Dewey

Roger Sloutenburgh D1340603

models and brain imaging techniques to investigate GVG's effects on neurochemistry and addictive behavior for more than ten years. These animal experiments have shown that GVG can block drug-induced increases in brain dopamine (a chemical associated with reward and pleasure, which is elevated by all addictive drugs), drug-seeking behavior, drug self-administration and sensitization, and drug craving — even that triggered by environmental cues.

"This promising work on a potential treatment for drug addiction illustrates the value of DOE's basic research in physics,

chemistry, and imaging sciences," said Secretary of Energy Spencer Abraham. "The advanced technologies developed in DOE laboratories are being applied to a number of critical national health issues, including the problem of drug abuse."

Said lead author Jonathan Brodie, a psychiatrist and biochemist at NYU who also collaborated on the animal experiments, "These human clinical data support the need for a larger double-blind, placebo-controlled trial that will more carefully examine the risk/benefit relationship for GVG in the treatment of cocaine addiction — a life-threatening disease for which there are currently no effective pharmacological treatments."

The study was conducted in June and July of 2003 at a Mexican-government-designated addiction treatment center in Baja California (*Clinica* (continued on page 2)

Using an experimental addiction treatment first investigated at BNL, a team of scientists from the Lab, the New York University (NYU) School of Medicine, and a national addiction treatment center in Mexico report prolonged abstinence and the elimination of drug craving in eight out of 20 hard-core, long-term cocaine addicts who enrolled in the study. This is the first human clinical data showing that gamma vinyl-GABA (GVG, vigabatrin) holds promise as a pharmacological treatment for cocaine addiction. The results will appear in the December 1, 2003, issue of the journal *Synapse*, available online September 22, 2003.

"It is extremely gratifying to see these early human results bear out what we've observed in our extensive preclinical animal studies with GVG," said Stephen Dewey, Chemistry Department, who has been using animal

BNL's Pollution Prevention Projects Funded in FY2003

Two new 500-gallon oil-storage tanks — one for gasoline-engine motor oil and another for diesel-engine motor oil — were recently installed in BNL's automotive shop.

Using the double-walled tanks for oil storage, rather than 55-gallon drums, permits the purchase of recycled oil for the Lab's fleet of more than 300 gasoline, compressed natural gas, and/or diesel-powered vehicles. Another 280-gallon motor oil tank was placed in the public gas station at BNL.

Henry Hauptman, Staff Services Division, and Peter Pohlot, Environmental & Waste Management Services Division (E&WMSD), proposed using the new tanks as part of the Laboratory's 2003 Pollution Prevention Program. Implementing the proposal cost \$4,000, but savings are estimated to amount to \$2,200 per year.

This year, the Pollution Prevention Council, composed of one representative per directorate and chaired by George Goode, E&WMSD, has chosen to fund eight out of 19 proposals. While they will cost \$96,055 to implement, savings will amount to an estimated \$88,069 per year.

"I came to BNL to start the Pollution Prevention Program in 1991," said Goode. "I strongly believe in the prevention method of dealing with environmental problems. If toxic materials are

eliminated, the costly requirements of managing them are also gone. BNL employees have annually thought of innovative ways to decrease pollution, and, in the past twelve years, we have decreased waste generation from routine operations by 70 percent."

Other funded FY03 proposals are:

• Radioactive Waste-Sorting Table

Joel Scott, Collider-Accelerator Department, requested \$2,500 to fabricate a waste-sorting table for separating clean waste from radioactive waste generated by the operation of the Alternating Gradient Synchrotron and the Relativistic Heavy Ion Collider. The sorting table has the potential to reduce 100 to 150 cubic feet of solid radioactive waste per year, thus generating savings of up to \$5,000 per year, resulting in a six-month payback period.

• Sealing Shroud for BLIP Exhaust System

Leonard Mausner, Medical Department, requested \$13,400 for fabricating a sealing shroud to isolate cooling water from air in the Brookhaven Linac Isotope Producer's (BLIP) exhaust system. BLIP produces short-lived radioisotopes that are used for medical diagnostic procedures and research. The shroud is expected to slow the diffusion of humidity from cooling water into the air stream, effectively prolonging the decay time for gaseous O-15 and C-11 radio nuclides. In addition to reducing radioactive airborne emissions and lowering offsite exposure, the project improves environmental compliance and lowers monitoring costs. A conservative payback period is one year.

• Kinetic Phosphorescence Analyzer

Jeffrey Gillow, Environmental Sciences Department (ESD), suggested installing a Kinetic Phosphorescence Analyzer (KPA) system at a cost of \$20,000 to replace a chemical method for measuring uranium. An ESD research project focuses on understanding the mobility of radioactive contaminants in the natural environment at DOE sites. It is essential to know the oxidation state of uranium in order to assess the effectiveness of strategies for treating this contaminant. Currently, a wet chemical method that generates mixed-chemical and radioactive wastes is used to determine the oxidation rate of uranium. The new system would eliminate the mixed waste, decrease labor by 75 percent, and reduce the amount of uranium handled in the laboratory and amount of liquid waste by 90 percent. Savings from reduced disposal and labor costs result in a payback period that will be less than one year. (cont'd., page 2)

(Below) By the new double-walled "Lube Cubes" in BNL's automotive shop are (left) Henry Hauptman, Staff Services Division (SSD), and Peter Pohlot, Environmental & Waste Management Services Division — who together proposed using the larger tanks as part of BNL's 2003 pollution prevention program. Motor vehicle maintenance supervisor Roland Baillargeon, SSD, (above) shows how easy it is to check the amount of oil in the tank.



Joseph Rubino D0400603

Calendar of Laboratory Events

- The BERA Sales Office is located in Berkner Hall and is open weekdays from 9 a.m. to 3 p.m. For more information on BERA events, contact Andrea Dehler, Ext. 3347; or Chris Carter, Ext. 2873.
- Additional information for Hospitality Committee events can be found at the Lollipop House and the laundry in the apartment area.
- The Recreation Building (Rec. Hall) is located in the apartment area.
- Contact names are provided for most events for more information.
- Calendar events flagged with an asterisk (*) have an accompanying story in this week's Bulletin.

— EACH WEEK —

Weekdays: Free English for Speakers of Other Languages Classes

Beginner, Intermediate, and Advanced classes. Various times. All are welcome. Learn English, make friends. See www.bnl.gov/esol/schedule.html for schedule. Jen Lynch, Ext. 4894.

Mon., Tues., & Thurs.: Kickboxing

\$5 per class. Mon. & Thurs. noon-1 p.m. in the gym; Tues., 5:15-6:15 p.m. in the gym; Thurs., 5:15-6:15 p.m. in Brookhaven Ctr. Registration is required. Christine Carter, Ext. 2873.

Mon., Thurs., & Fri.: Tai Chi

Noon-12:45 p.m., Brookhaven Center North Room. Adam Rusek, Ext. 5830 or rusek@bnl.gov.

Tuesdays: Welcome Coffee

10-11:30 a.m. Rec. Hall. Hospitality event. Come and meet friends. The first Tuesday of every month is special for Lab newcomers and leaving guests. Hospitality Chair Monique de la Beij, 399-7656.

Tuesdays: BNL Music Club

Noon, North Room, Brookhaven Center. Come hear live music. Joe Vignola, Ext. 3846.

Tuesdays: Singles Club

5:15 p.m., Brookhaven Center. Contact: Jean, Ext. 4391.

Tuesdays: Toastmasters

1st and 3rd Tuesday of each month, 5:30 p.m., Bldg. 463, room 160. Guests, visitors always welcome. www.bnl.gov/bera/activities/toastmasters/default.htm.

Tuesdays & Thursdays: Aerobics

5:15-6:30 p.m., \$4 per class. Rec. Hall. Pat Flood, Ext. 7886.

Tuesdays & Thursdays: Aqua Aerobics

5:15-6:15 p.m. Christine Carter, Ext. 2873.

Wednesdays: On-Site Play Group

10 a.m.-noon, Rec. Hall. An infant/toddler drop-in event. Parents meet while children play. Suzanne Surrow, 476-6610.

Wednesdays: Farmer's Market

11:30 a.m.-1:30 p.m., Berkner Hall parking lot

Wednesdays: Weight Watchers

Noon-1 p.m. Michael Thorn, Ext. 8612.

Wednesdays: Yoga Practice

Noon-1 p.m., Brookhaven Center. Free. Ila Campbell, Ext. 2206.

Wednesdays: Open Chess Night

5-8 p.m., Rec. Hall. Christine Carter, Ext. 5090.

Wednesdays: Exercise 101

5:15-6 p.m., Rec. Hall. \$4 per class or \$35 for 10 classes. Stretching, low-impact aerobics, and other exercises. Pat Flood, Ext. 7886.

Fridays: Family Swim Night

5-8 p.m. at the BNL Pool. \$5 per family.

Fridays: BNL Social & Cultural Club

6-9 p.m., North Ballroom, Brookhaven Ctr., dance lessons, 9-11:30 p.m. general dancing. Rudy Alforque, Ext. 4733, rudy@bnl.gov.

Fridays: Jiu Jitsu Club

6-7 p.m. in the gym. All levels, ages 6 and above. \$10 per class. Tom, Ext. 4556.

Hispanic Heritage Month Is Celebrated 9/15-10/15

— THIS WEEKEND —

Friday, 9/26

*ASAP Gathering

5 p.m. at the gazebo by the softball fields, or at the ASAP Lounge, Bldg. 750, if it rains. Free. All students and post-docs are welcome. Heroes, salads, chips, soda, cookies, and more will be provided. For more information, go to <http://www2.bnl.gov/asap>.

Saturday, 9/27

Bus Trip to Storm King Art Center

\$12 per person. Bus leaves BNL at 10 a.m. for the Storm King Art Center and Sculpture Park in Mountainville, N.Y. Bring picnic lunch. Christine Carter, Ext. 5090.

— WEEK OF 9/29 —

Monday, 9/29

Free Movie Night

7 p.m. Berkner Hall. Lord of the Rings, Fellowship of the Ring. All are welcome. Sponsored by BNL's English for Speakers of Other Languages Program. For more information, contact Deepali Mitra, Ext. 5360.

Wednesday, 10/1

*Taino Artist, Musician, Storyteller Talks on Taino Indians' Influence On Hispanic Culture

12:15-1 p.m. Berkner Hall. All are welcome. See notice page 4.

In Memoriam Mow Lin

Mow Lin, a chemist in the Energy Sciences & Technology (EST) Department who was at BNL for 28 years, died at 62 on September 12, 2003.

William Horak, EST Chair, said, "Dr. Lin was a leader in developing advanced energy sources within the department and a key intellectual contributor to the work of his team. His research on geothermal energy was highly valued by DOE and received an R&D 100 award in 2001. His work on clean fossil fuels led to several patents. Dr. Lin was starting a new program on membrane templates, based on research funded by a BNL LDRD, for DOE's Office of Fossil Energy, when he died tragically on a trip to China."

Former ESTD Division Head and now retiree Eugene Premuzic, Lin's supervisor and colleague for many years, said, "Mow was an outstanding chemist who will be a great loss to the Laboratory. His unique versatility and broad knowledge and understanding of several areas of chemistry, biochemistry, and materials science was a great contribution to the successes of several major programs. He was most happy working in the lab and he loved to fix instruments and figure out alternative experimental routes. Mow was a quiet person with a subtle sense of humor, always pleasant and helpful. I have lost a good friend and colleague."

Lin had earned his BSc. in chemistry at Tamkang College in Taiwan in 1965, and his Ph.D. in chemistry from the University of Wyoming in 1973. He became a member of BNL's Chemistry Department as a resident associate on January 7, 1975, moved to the Department of Nuclear Energy in 1980 and then, as a chemistry associate I, joined the then Department of Energy & Environment in February 1982, where he was

named Chemist in 1989.

Lin's research at the Lab has been largely focused on using microorganisms from extreme environments in new ways, which has resulted in his coholding nine patents. By 1983, he was part of a team working with Premuzic to develop new natural products to remove poisonous heavy metals from mammals. Years later, in 2001, for developing a technology to recover commercial-quality silica from geothermal brine, Lin and Premuzic, with Caithness Operating Company, won the prestigious R&D 100 award, given by *R&D Magazine* to honor the top 100 technological achievements of the year.

Previously, in 1997, Lin was a key member of the team that was recognized by the National Awards Council for Environmental Sustainability and included in the 1997 Environmental Success Index. The award was for a project in which sulfur-eating bacteria, *Thiobacilli*, clean toxic waste from geothermal energy plants while simultaneously recovering valuable metals.

Earlier still, in 1994, Lin was the principal investigator of a BNL team including Premuzic and others working with a Californian environmental remediation company to use selected bacteria to convert toxic oil wastes, such as oil spills and used motor oil, into useful products.

With time, Lin has been expanding his research interests. Some of his most recent research on coal-eating bacteria is featured on page 1.

Lin was recognized as outstanding in another aspect of BNL research: mentoring students.

"Mow Lin was one of our most dedicated, hard-working, and respected mentors," said Brian Murfin, who heads BNL's Office of Educational Programs. "He was always available to take



Mow Lin in 1983

Alex Reben 10-52-83

on a student, and every student who worked with him remarked on what a valuable experience they had had. His contributions to the development of future scientists have been tremendous, and this was recognized, for example, in 2000, when he won the Hispanic Heritage Outstanding Mentor Award in Washington, DC. Scientists like Mow Lin are an inspiration not only to the students they work with, but to all science educators. He was such a wonderful mentor and caring person that I wish all students could have had the privilege of working with him."

A tribute from Thomas Butcher, Energy Resources Division head, confirms Murfin's view. "Besides being an extremely creative researcher, Mow took on at least three students every year and put tremendous effort into guiding them. My son worked with him this past summer, and the experience had a very positive influence on his career plans. For me, it is the human side of Mow

that I shall miss the most."

"Mow loved BNL," said Premuzic, and many people at BNL knew and appreciated Lin's warm personality. He was active in various BERA clubs: an early Bulletin article shows him as one of a 1983 group of fishing fly tiers, he was an avid runner, and every year he contributed a talented painting or drawing to the BNL art show.

A resident of Rocky Point, Mow Lin is survived by his wife, Beth Lin of the Biology Department, and daughters Samantha Lin, BNL Operations Directorate, and Cindy and Sophia Lin; and a granddaughter.

— Liz Seubert

Mow Lin Memorial, 10/2

All are welcome at a memorial gathering in Mow Lin's honor on Thursday, October 2, in the Brookhaven Center South Room, starting at 3 p.m. The memorial talks will begin at 4 p.m. Refreshments will follow at 5 p.m. in the North Room. For more information, call Donna Storan, Ext. 2716.

Arrivals & Departures

Arrivals

Barbara Hubbard Medical
Yun Luo C-A
Boris Peterson ES&T
Wenming Wang EnvSci.

Departures

Edmund Killian Magnet
Anna Kulesza Physics
Gang Liu Chemistry

Dewey/GVG

Integral de Tratamiento Contra Las Adicciones in Mexicali, B.C.) GVG is approved for use in the treatment of epilepsy in Mexico (and many other countries), but not in the U.S. because it can sometimes cause a reduction in the field of vision. The protocol was approved by the state of Baja, California, and the Mexican federal government.

"The success rate achieved in this small study — 8 out of 20 remaining in the trial and drug-free — is comparable to that of other experimental cocaine addiction treatment protocols. But the prolonged duration of abstinence far exceeds what other pharmacological treatments have achieved," said Frank Vocci, Director, Division of Treatment Research and Development, National Institute on Drug Abuse (NIDA).

Correction to Account Request Form Address

The Web address for the Information Technology Division's on-line Account Request form was incorrectly listed in last week's Bulletin.

The form is located at <http://accounts.bnl.gov>.

(cont'd.)

The scientists hope that larger scale trials on GVG will be conducted at NIDA-sponsored addiction research centers in the U.S. to investigate its efficacy as a treatment for addiction as well as any side effects.

In October 2002, Catalyst Pharmaceutical Partners of Coral Gables, Florida, received an exclusive worldwide license from BSA, operator of BNL, for the use of the drug vigabatrin for its application in treating drug addiction.

This work was funded by the Biochemical Psychiatry Fund at the NYU School of Medicine, the Office of Biological & Environmental Research within DOE's Office of Science, and NIDA.

— Karen McNulty Walsh

For more details, go to www.bnl.gov/bnlweb/pubaf/pr/2003/bnlpr092203a.asp.

(cont'd.)

Pollution Prevention

• Scintillation Vial Crusher

Andrew Gifford, Medical Department, requested \$3,795 to purchase and install a scintillation vial crusher. In FY2002, researchers generated approximately 40 cubic feet of low-level radioactive waste consisting of scintillation vials, which is part of the equipment used to measure radiolabeled chemicals from tissues in imaging studies. A scintillation vial crusher is expected to reduce waste by 40 percent per year. The payback period is estimated at 1.75 years.

• New Scintillation Counter

John Shanklin, Biology Department, requested \$35,000 to replace a standard scintillation counter with a microplate scintillation counter. Shanklin uses a scintillation counter to obtain data in studies of the fatty acid desaturases in plants. Since the new counter is more sensitive than the old one, smaller samples are required, and it is estimated that mixed waste generation would be reduced by about 90 percent. In addition, the new counter will significantly reduce sample preparation and counting times resulting in greater efficiency. The payback period is approximately one year.

• RTF Film Processor

Lucian Wielopolski, Environmental Sciences Department, requested \$13,860 for a Konica SRX-201A film processor to replace the current processor in the RTF. In 1991, University Hospital at Stony Brook joined BNL to

establish the RTF on the BNL site for the treatment of cancer patients who live on eastern Long Island. The RTF processes approximately 40 x-ray films per day, generating approximately 200 gallons of hazardous waste and 300 gallons of industrial waste annually. The new processor is expected to reduce hazardous waste by 80 percent and industrial waste by 60 percent. Additional benefits include reduced maintenance and automatic features that will result in labor savings and water conservation. The payback period is expected to be less than one year.

• Dry Pumps, New Catalyst

Linda Bowerman, Environmental Sciences Department, requested \$6,000 for replacing oil-displacement pumps with oil-free pumps for the Atmospheric Chemistry Group's laboratory and aircraft missions. Dry pumps will eliminate waste pump oil generation and oil vapor being released into the atmosphere. In addition, Bowerman suggested that a new precious metal catalyst, called Sofnocat, replace the chemical catalyst currently used in the instrument that measures carbon dioxide in the atmosphere. While the chemical catalyst generated eleven pounds of waste annually, the new catalyst is much more efficient and will not generate waste. Savings from reduced disposal costs and reduced labor are expected to result in a payback period of 1.7 years.

— Diane Greenberg

Have Passport, Will Umpire!

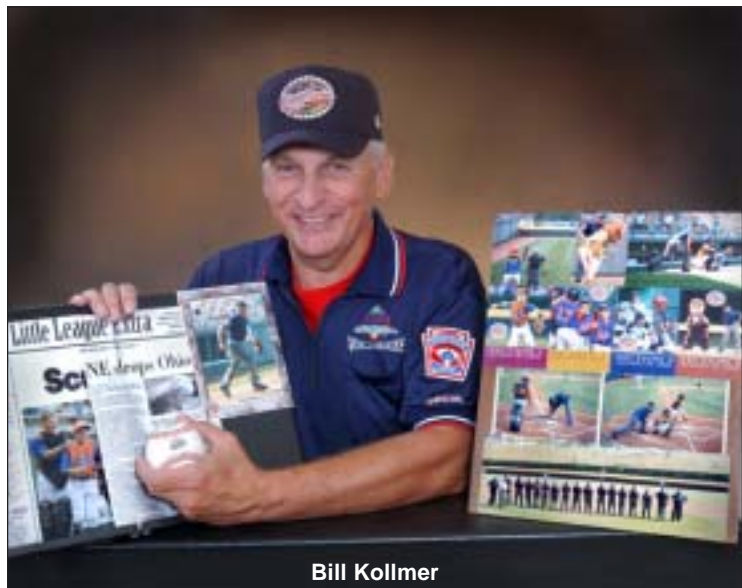
It's just the best, like when you see the Grand Canyon for the first time, or you're on top of a mountain. Words can't express it."

That's how Bill Kollmer, Collider Accelerator Department, describes how a person who, after contributing almost unlimited time, energy, and devotion to a particular occupation, can feel on achieving its highest honor.

Kollmer's chosen spare-time avocation is volunteer umpiring for Little League Baseball. He reached the "top of the mountain" this summer, when, after attending umpire training and years of experience in tournaments in the U.S. and abroad, he was the first Long Islander to be selected as an umpire at the annual Little League World Series in Williamsport, Pennsylvania.

"There were 16 teams in the tournament," says Kollmer. "Eight from the U.S. and the others from Japan, Mexico, Canada, Russia, Guam, Venezuela, Curacao, and Saudi Arabia. Because most umpires want to be there, it's extremely competitive."

Communication can be a problem, so interpreters are



Bill Kollmer

Roger Stoutenburgh D&S/0303

available even though many of the calls are universal. "When an umpire calls 'OUT!' they know they're out!" he says.

However, "There are times when you have to interpret the written word to a coach who does not understand English, and you have to be very diplomatic," Kollmer explains. "The whole point of Little League is to be able to compete and still remain friends. It's important

not to aggravate a situation by explaining a decision in a way the coaches don't understand."

Kollmer had decided he'd like to become an umpire long ago, when his sons were in Little League. In 1987, he went to Little League Umpires School at Williamsport. Then, in 1988, he became chief umpire for New York District 35, and, in 1995, formed the District 35 Little League Umpires

Association with Doug Fisher, a BNLER, now at Fermilab, who still shares Kollmer's great interest in umpiring.

Over the past eight years, Kollmer has umpired European Little League tournaments in Poland and Germany. His wife, Carol, who shares his interest and became the District 35 administrator at home, accompanies him and helps with the administrative side abroad.

"You learn a lot, traveling," comments Kollmer. "You find out that although the circumstances abroad may be different, the enthusiasm and concerns are very similar. It draws you together with other nationalities."

Kollmer is retiring from BNL at the end of this month. Will he continue with his umpiring even after reaching that highest peak?

"Definitely," he says. "My wife and I find it very worthwhile to help young people enjoy competing together, which we believe makes them more mature. As long as they invite us, we'll try and get there. Have passport, will umpire!"

— Liz Seubert

Meet the Softball Champions of 2003



Joseph Rubino D&S/0303

The Magnuts drew on their best play to establish victory over the field; they are: (front, from left) Ed Gavin, Lou Tenreiro, co-captain Louie Nieves, and Lenny Campione; (standing, from left) Rich Chorzempa, Kevin Fox, Jim Alduino, Danny Martin, Don VonLintig, John Bohnenblusch, Eric Kramer, Gordon Votruba, and captain John McCaffrey. Missing from the picture are: Steve Bubka, Mark McNeil, Steve Pontiere, Emil Varricho, and John White.



Joseph Rubino D&S/0303

The Guzzlers munched enough vitamins to take them all the way to the top, they are: (from left) Lenny Campione, Marcia Allocco, Michael Cowell, Ed Gavin, Gordon Votruba, Glen Todzia, captain Gary Olsen, Holly Olsen, Sue Borelli, and Pat Sullivan. Missing from the picture are: Michael Allocco, Crystal Gavin, Lisa Gavin, Dave Mazella, Steve Singledecker, Donna Sullivan, Jennifer Votruba, Russell Wilkins, Jr., co-captain Jim Williams, and Al Borelli — thanks for the assistance, Al, says the team.



Joseph Rubino D&S/0303

The Happy Hours wasted no time in crying for their losing opponents, they are: (front, from left) Joanne McNaught, Elaine Booker, captain Phil Baker, Jennifer Graham, and Dawn Mosoff; (middle, from left) William Andersen, Lyn Fountaine, Devonne Turner, Claudia Jones, and co-captain Tony Begley; (back, from left) Tony Boggi, Izzy Garcia, Joe DeVoe, and Scott Spenser. Missing from the picture are: Mellissa Abramowitz and George Morgan.



Joseph Rubino D&S/0303

The Bar-Flys buzzed in to sip the cup of victory; they are: (front, from left) Sonny Dimaiuta and Rich Morante; (back, from left) Frank Teich, co-captain Joe Gormley, Andy Sauerwald, captain Steve Klerk, Jim Stolfy, Sonny Dimaiuta, and Rich Morante.

BERA Softball Board Elections

The BERA Softball League will meet on Wednesday, October 8, at noon in Berkner Hall, Room D. All captains are required to attend. Anyone can run for the board; all positions are open. If you are interested in running, e-mail softball@bnl.gov and be sure to attend the meeting.

Retirement Counseling

A TIAA-CREF representative will visit BNL on Wednesday, 10/8; Thursday, 10/9; Wednesday, 10/15; and Thursday, 10/16, to answer employees' questions regarding the TIAA-CREF retirement plan, such as TIAA and CREF differences, allocating funds between TIAA and CREF, options, flexibilities with TIAA/CREF, and various retirement options. To arrange a 45-minute appointment, call Duane Walden, (800) 842-2733, Ext. 7289 (not the on-site Ext. 7289).

Flu Shots Offered at OMC

The influenza (flu) vaccine will be offered to all full-time and part-time BNL employees at the Occupational Medicine Clinic, (OMC) Bldg. 490, Tuesday to Friday, September 30-October 3. Flu shots will be available through December for those who are unavailable during the times listed below. The schedule will be:

- 9:30 a.m. to 10:45 a.m. Last Names A to G
- 10:45 a.m. to 11:45 p.m. Last Names H to M
- 1 p.m. to 2:30 p.m. Last Names N to S
- 2:30 p.m. to 4 p.m. Last Names T to Z

All BNLeers are asked to bring their ID badges and, in order to expedite the vaccination process, OMC staff recommend wearing a short-sleeved shirt. For more information about the flu vaccine, call Ext. 3670, and ask to speak with a nurse.

Calendar Wednesday 10/1 (cont'd.)

Money Talks Workshop: Estate Planning
5:30-7:30 p.m., Berkner Hall, Room B. American Express Financial Advisors Inc. seminar on estate-planning, tax advantages, more. Complete the "Estate Planning" registration form sent to all employees and return it to Joyce Wund, Bldg. 185, by Monday, 9/22.

Friday, 10/3

*Tour BNL's new NASA Space Radiation Laboratory

Noon, Berkner Hall. All are invited to visit the NSRL and learn about the research on cosmic and solar radiation being started there. Meet at noon to catch the Lab bus, return by 1 p.m. Elaine Lowenstein, Ext. 2400.

2003 Pine Barrens Research Forum
8:30 a.m.-4 p.m., Berkner Hall. All are welcome to this free meeting on Pine Barren-related topics. For more information, see http://pb.state.ny.us/research/2003_agenda_and_registration.htm or call Tim Green, Ext. 3091.

'Latin Rhythms' Concert
8 p.m. Berkner Hall. Cabaret singer Yvette Malavet-Blum, with Sam Carr at the piano, two BNLeers who have each given many concert performances on Long Island and elsewhere, will perform "Latin Rhythms," sponsored by the BNL Music Club. \$8. See page 4.

— WEEK OF 10/6

Tuesday, 10/7

Adelphi and Phoenix Online Demo
10 a.m.-2 p.m., Berkner Hall. Representatives from Adelphi University and Phoenix Online will present BNLeers with information on various educational opportunities offered by the two institutions. For more information, contact Ruth Comas, Ext. 3545.

Caring Friends Meet
Noon, Berkner Hall, Room D. An informal support group is being started to serve as a resource for individuals experiencing grief and the many emotions following the loss of a loved one. Gatherings will be held on the first Tuesday of each month. All are very welcome. For more information, call Pat Hein, Ext. 3962, or Gerry Van Derlaske, Ext. 3476.

BWIS Meeting
Noon, Berkner Hall, Room A. Brookhaven Women in Science (BWIS) annual general meeting to vote on officers for next year. Shirley Kendall, BNL's new Diversity Manager, will be present to meet members. All are invited.

Wednesday, 10/8

Noon Recital, Wind Quintet
Noon, Berkner Hall. The Calico Winds wind quintet, five women who "shatter the stereotypical stodgy image of the conventional wind quintet" will perform. Noon recitals are free and open to the public.

Thursday, 10/9

***Glass Ceilings for Women Scientists**
Noon, Berkner Hall. BWIS-sponsored talk by Ella Wasserman on "Breaking the Glass Ceiling: Myths and Realities for Women Scientists." All are welcome to this free talk. See notice on page 4.

Community Advisory Council Meeting
6:30 p.m., Berkner Hall, Room B. Open to the public. For more information, see <http://www.bnl.gov/community/CAC.htm>.

Sunday, 10/12

Flamenco Concert
3 p.m., Berkner Hall. Sol Y Sombra presents "Encuentro Flamenco," a concert sponsored by BNL's Hispanic Heritage Club features Spanish classical and Flamenco music and dance. Tickets, at a cost of \$10 per adult, \$5 for children under age 10, can be purchased at the BERA Sales Office in Berkner Hall, weekdays from 9 a.m. to 3 p.m. Tickets will not be sold at the door. For more information, contact Carmen Narvaez, Ext. 3254, or narvaez@bnl.gov; or Omar Gould, Ext. 2656, or ogould@bnl.gov.

— WEEK OF 10/10

Wednesday, 10/15

Brookhaven Lecture
4 p.m., Berkner Hall. James Wishart, Chemistry Department, will talk about BNL research on ionic liquids.

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.

'Latin Rhythms,' 10/3, 8 p.m.



Yvette Malavet-Blum and Sam Carr

Roger Stoutenburgh DRS0903

Sponsored by the BNL Music Club, cabaret singer Yvette Malavet-Blum, with Sam Carr at the piano, will give a concert of "Latin Rhythms," on Friday, October 3, at 8 p.m. in Berkner Hall.

Malavet-Blum of BNL's Director's Office, a performer in Manhattan and Long Island, will sing popular Spanish language songs, English songs with a Latin beat, and Spanish songs with English lyrics. Sam Carr, of BNL's Physics Department, has played for choirs and singers all over Long Island.

The concert is open to all. Buy tickets, at \$8, at the BERA Sales Office or at the door. Visitors over 16 must carry picture ID.

Classified Advertisements

OPEN RECRUITMENT – Opportunities for Laboratory employees and outside candidates.

MK2818. POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in biophysics, biochemistry, or related field and a strong background in biochemistry. Must be willing to learn cryo-electron microscopy. This work will involve the study of structures of membrane proteins and biological macromolecular complexes by electron cryo-microscopy. Facilities available include a new 200 keV FEG TEM, and access to the STEM facility and National Synchrotron Light Source. Under the direction of H. Li, Biology Department.

MK2768. POSTDOCTORAL RESEARCH ASSOCIATE – Requires a Ph.D. and training in electrochemistry and knowledge of materials chemistry and materials characterization by x-ray methods. Experience in non-aqueous electrochemistry, synthesis and characterization of lithium-ion battery materials and the application of synchrotron x-ray techniques, including x-ray absorption spectroscopy (XAS) and data analysis of XAS data highly desirable. The research work involves materials synthesis and the use of both the hard and soft x-ray facilities at the National Synchrotron Light Source to do diagnostic work on performance degradation mechanisms and failure modes in high power lithium ion batteries. The synthesis involves preparation of metal oxides by sol gel and other techniques. The x-ray work includes x-ray absorption spectroscopy and x-ray diffraction. This program is related to the development of batteries for hybrid electric vehicles. Under the direction of J. McBreen, Materials Science Department.

NS3167. SR. TECHNOLOGY ENGINEER (I-8) – Requires advanced degree in information technology, physics or closely related field and five years experience in support of large-scale scientific computing including hands on experience with Globus-based computing Grid technology. Experience with Linux system administration including networked file systems and other distributed computing utilities is required, as is programming/scripting experience using modern programming techniques and languages such as C++, Java, Python, and Perl. Experience with high energy and nuclear physics (HENP) computing and facility level cyber security are highly desirable. Responsibilities will include playing a principal role in the analysis of HENP user-community requirements and the de-

sign, development, and operation of local computing fabric and wide area Grid infrastructure necessary to satisfy those requirements. Physics Department.

NS3168. ADVANCED TECHNOLOGY ENGINEER (I-7) – Requires a bachelor's degree in information technology, physics or closely related field and five years' experience in support of computing for a large user community. An advanced degree and experience in high energy and nuclear physics (HENP) computing are highly desirable. Experience with Linux system administration including networked file systems and other distributed computing utilities is required as is programming/scripting experience using modern programming techniques and languages such as C++, Java, Python, and Perl. Experience with Globus-based computing Grid technology and facility level experience with cyber security is highly desirable. Will participate in the design, development, and operation of the local computing fabric and its connection to the wide area Grid infrastructure necessary to satisfy the computing requirements of an HENP user community. Physics Department.

NS3166. SR. APPLICATIONS ANALYST (I-5, term appointment) – Requires bachelor's degree or equivalent experience, preferably in computer science or related discipline. Relevant previous experience working in a data-processing cluster environment (preferably within a research environment), knowledge in computer systems administration (Linux) as well as experience in data safety, data management, and cataloging, scripting languages (such as Perl), programming experience in FORTRAN, C, C++ and web languages (XML, PHP, Java) necessary. Experience in SOAP/WSO, Database, ODBC a plus. Responsibilities include developing support and consolidating the offline software and computing infrastructure including support for production, data management, Grid infrastructure, and management of inventory of software/hardware resources, and software design. STAR Group/Physics Department.

NS3170. APPLICATIONS ANALYST (I-4, term appointment, part-time 50%) – Requires a bachelor's degree in electronic graphics design or a closely related discipline, and demonstrated experience using Adobe InDesign, Illustrator, and Photoshop as well as Macromedia Dreamweaver and Flash. The ability to work with and troubleshoot raw HTML documents is necessary; familiarity with Vsystem Vdraw is highly desirable; general knowledge of database access is also desirable. Under general direction, responsibilities will include the design and imple-

mentation of web pages, forms and accelerator control displays as well as other computer graphics-oriented tasks. Accelerator Test Facility/Physics Department.

TB2116. TECHNICAL SPECIALIST (T-2, reposting) – Requires a BS degree in electronic technology or equivalent capabilities, plus at least six to eight years of pertinent experience. Well developed skills in prototype circuit board assembly from schematics, surface mount assembly techniques, component evaluation and testing complex FPGA circuits using logic analyzers, digital and analog oscilloscopes also required. Work assignments are usually on a project basis, requiring a very high degree of proficiency in technical skills and techniques in such areas as operation, maintenance, and construction of equipment, systems, and facilities involved with scientific investigations. May direct and coordinate the work efforts of other technical support personnel assigned to a specific project. Familiarity with LabVIEW is essential and AutoCAD LT or other CAD software is desirable. Must be able to work mandatory overtime and be available during nonscheduled hours to respond to departmental operations as required. Collider-Accelerator Department.

Motor Vehicles & Supplies

02 TRAILER - Flagstaff Super Lite 27' fiberglass trailer, awning, towing pkg., excel. cond. \$14,500. George, 878-1178 or 878-3770.

01 HONDA CIVIC HX - blk., 2dr. 41K mi., 42mpg, m/t, \$9,000. Matt, 516-695-4307.

98 SATURN SL2 - a/t, a/c, p/s, p/b, new brakes & tires, mint cond., must see, 91K Hwy. mi., \$4,000. Bud, 680-2221.

96 NISSAN ALTIMA GLE - loaded, excel. cond., 73K mi., \$5,500. Bill, 924-1346.

95 PLYMOUTH VOYAGER - a/t, a/c, p/s, p/b, c/c, 3L, V6, 8 pass., am/fm cass., remote starter, 117K mi., \$1,700. Rich, Ext. 7013 or 698-5294.

95 TOYOTA CAMRY LE - new brakes & tires, excl. cond., 124K mi., ask., \$3,900. Tony, Ext. 3354 or 586-1510.

94 CHRYSLER LHS - fully loaded, gd. cond., 108K mi., ask., \$2,900. John, 345-0731.

94 TOYOTA 4RUNNER SR5 - needs eng., looks great, 135K mi., \$2,600. John, 921-0567.

93 DODGE CARAVAN - 3L, V6, p/l, p/w, new Alpine radio, CD player & windshield, 82K mi., \$3,900. Mike, Ext. 5319 or 698-8028.

93 FORD TAURUS - a/t, a/b, many new parts, gd. cond., 78K mi., \$2,000. Edward, Ext. 4431 or 718-756-7499.

93 TOYOTA PICK-UP - red, 4cyl., cap, runs well, \$1,300 solid price, Walter, Ext. 4180.

92 HONDA ACCORD EX - blk., 4dr., gd. cond., 93K mi., \$3,000. Maria, 399-1756.

89 BUICK CENTURY - a/c, great cond., \$1,500. Chris, 331-4380.

79 CHRYSLER CORDOBA - 2dr., h/t 318 eng., cream & beige, 29K mi., orig. owner, must see, ask., \$3,000. Fred, 588-2268.

68 PONTIAC FIREBIRD 400 - w/Chevy 327 4spd. manual, 3/4 restored, runs well. \$5,000 neg. Ken, 286-3626.

67 MERCEDES BENZ 230S - a/t, p/s, p/b, needs some body work, runs well, 78K mi., \$950. Sorin, Ext. 2765.

TWO-WHEEL TRAILER RACK BODY - \$4,225. Richard 924-6751.

Boats & Marine Supplies

30'-12" SEARAY WEEKENDER - 78' Beam, full fiberglass, camper canvas, full galley w/ shower, professionally main., 503 hrs, mint cond., ask., \$25,000. Bruce, 732-2145.

25' HOLIDAY CRUISER - '83 350 Chevy/ OMC I/O eng., fully cont., bay/ocean, extras, no trailer, must sell, \$5,000. Joyce, 208-3758.

24' SUPERBOAT - twin, 200 Merc's, very fast. \$9,000. Matt, 516-695-4307.

CHAIRS - pedestal type captain chairs. Gary, Ext. 2214.

Furnishings & Appliances

BED - twin w/frame, \$10; toddler car seat, 20-40lbs, \$20. Robin, 744-3902.

CHAIRS - maple wood arms & legs, blue cotton duck upholstery, \$25; coffee maker, 10 cups, \$8. Karen, Ext. 4262.

DESK - corner, lg. natural, \$150; blue desk chair, \$25; bookcase & twin bed, \$135; dresser changing table, \$225; crib, \$175. Fthenakis, Ext. 2830.

FREEZER - upright, approx. 17 cu. ft., works well, \$50; lobster traps, 2 wood & 5 wire, ropes & buoys, \$10 ea., 2 scallop Dredges, \$20 ea. Carl, 929-5781

SEWING MACHINE - w/table, old, but in gd. cond., \$40, neg. Barbara, 744-3569.

TABLE - handmade trestle table, 29"x72", best offer. Elaine, Ext. 3876.

TABLES - 3' sq. glass w/wood top coffee table for l/r, end table to match, \$50/both; 40 yr. old Broyhill d/r: table, pads, 2 leaves, buffet, china cab., 6 chairs, \$350. Vic, 585-2084.

Sports, Hobbies & Pets

BIKE - Schwinn stationary exercise bike w/computer readout, 40lb. flywheel, excel. cond., \$125. Jim, 924-7374.

COOKTOP - 3-burner stove, gd. cond. for RV, motor home, trailer, or pop-up, ask., \$75. Tim, 208-0408.

ENGLISH SADDLE - 17" deep seat, fleece pad, 46" girth, \$25. Sherry, Ext. 5658 or 727-6714.

EXERCISE MANUAL STRIDE WALKER - pd. \$100, ask., \$50. Richard, 924-6751.

NORDIC TRACK PRO - excel. Cond., like new, hardly used, ask., \$125. Todd 728-3506.

WALKER - all mech. health walker, no elec. motor, \$50. Richard, 924-6751.

WEIGHTS - 2 ea., 10, 15, 20 lbs., \$15/all; wrist weights, \$5/set. Morris, Ext. 4192.

Miscellaneous

FOOD SEALER - seals food to lock out air & maintain freshness, new. Carol, 744-8632.

GUITAR - Alvarez acoustic model 5220, mint. cond.; new Shaller turners-new case, \$450 firm. John, 277-3805.

LEAF VACUUM - Billy Goat, 5hp w/shrub attach, best offer over \$250. Tim, 208-0408.

PIANO - 1948 Baldwin Acrosonic spinet piano, excel. cond., best offer. Elaine, Ext. 3876.

TONKA TRUCKS - big metal toy trucks, crane, grader, dump, payload, windows gd., some rust, & John Deere backhoe, \$15/all. Sherry, Ext. 5658 or 727-6714.

Audio Video, & Computers

COMPUTER - Compaq 9232 w/monitor & spkrs., HP 660CSE printer, best offer. Eugene, 286-6858.

COMPUTER - Dell, 1.1Ghz CPU, 20Gb HD, 256Mb RAM, CDRW, Win 2000 OS, MS Office, keybrd., & mouse, \$350. Don, Ext. 7237 or 929-6571.

COMPUTER COMPONENTS - Windows ME - PNY Simm Memory Modules, 16MB & 32 MB, 56K fax/modem, all in sealed containers, best offer. Eugene 286-6858.

MONITOR - Cannon 13 in. Lore, Ext. 5125.

STEREO EQUIPMENT - Bose 901 Series II w/Pioneer spkr.; Bose 901 Active Equalizer; Akai reel-reel tape deck; Sansi 5000X receiver; Pioneer PL-50 turntable. Elaine, Ext. 3876.

Wanted

BABYSITTER - to watch 6 mo. old girl on Saturdays, 8 a.m.-2 p.m. in Manorville. Travis, Ext. 7451 or 874-0706.

CAR POOL - from Bayside Queens to BNL, 8:30 a.m.-5 p.m., would like to share a ride w/anyone coming from the 5 boroughs. Jasbeer, Ext. 3177 or 718-631-3184.

HORSE TO CARE FOR - 13 yr. old girl, gd. rider wants to care for your horse, gentle horse preferred. Phil, Ext. 5475.

LAWN ROLLER - John, 744-5867.

RESEARCH VOLUNTEERS - men and women who smoke cigarettes, ages 18 and over, are needed for MRI study. Strictly confidential, fee provided. 344-2773.

Free

CAT - 5 yr. old Boomer, grey & white, needs a home, all vaccinations up to date, moving & can't take him w/me, very loving, gd. w/people. Peter, Ext. 2879 or 776-9096.

New Hours at BNL's Service Station

Effective October 1, Upton Industries Inc., BNL's on-site service station, will be open from 7:45 a.m. to 5:45 p.m. For more information, contact Billy, Ext. 4034.

ENTERTAINMENT CNTR. - & 10 gal. fish tank w/access. Arup, 744-6962, call eves.

Happenings

ATLANTIC CITY BUS TRIP - Showboat, \$25/pp, 10/11/03. For more information, contact: Lyn Fontaine, Ext. 2232, or Eugene Barrow, 369-8143.

5K RUN/WALK - at Little Flower Children's Services School, 2460 N. Wading River Road, Wading River, on 10/18 at 9:30 a.m. \$15 pre-registr. (before 10/14); \$20 registr. on 10/18, 8-9:15 a.m., \$10 for students. Long-slv. T-shirts for 1st. 150 registrd. participants. Rain/shine. Sheryl Carey, Ext. 7716.

In Appreciation

Thanks to my "BNL Family" for so much support, sensitivity, and generosity regarding the loss of my wife Sarah Zill. — John, Alice, Claire, and Laura, Shanklin

BERA Hispanic Heritage Club Taino Indians' Culture

On Wednesday, October 1, 12:15-1 p.m. in Berkner Hall, all are welcome to attend a talk by Taino artist, musician, and storyteller Roman "Redhawk" Perez on the Taino Indians and their influence on Hispanic culture. A small travel museum with Taino musical instruments will also be displayed.

The talk is free and open to the public. Visitors of 16 and over must carry a picture ID.

Get to Know Your Lab! Visit the NASA Space Radiation Laboratory

On Friday, October 3, all are invited to preview BNL's new NASA Space Radiation Laboratory, unique in the world for studying health effects of cosmic and solar radiation on astronauts. Meet at noon in Berkner Hall lobby. A bus will take the group to the NSRL and be back by 1 p.m.

Noon Recital, 10/8

All are welcome to the next noon recital, the Calico Winds wind quintet, five women who "shatter the stereotypical image of the conventional wind quintet." They will perform on Wednesday, October 8, in Berkner Hall. "They cross all the style lines and get away with it," comments the *Los Angeles Times*.

Aerobics Club

All are invited to join any of the following get-fit classes in the Recreation Hall, at \$4 per class or \$35 for a set of ten classes. For more information, call Pat Flood, Ext. 7886, or Sue Monteleone, Ext. 7235.

Aerobics: with either low or high impact, and some stretch and strength exercises. Tuesdays & Thursdays, 5:20-6:30 p.m.

Exercise 101: an easy beginner class: stretch, low impact aerobics, and light free-weights exercises. Wednesdays, 5:15-6:15 p.m.

ASAP Gathering Today

All students and postdocs are invited to a free gathering sponsored by BNL's Association for Students & Postdocs (ASAP) at 5 p.m. today at the gazebo by the softball fields, or at the ASAP Lounge, Bldg. 490, if it rains. Heroes, salads, chips, cookies soda, and more will be provided. For more information, go to <http://www2.bnl.gov/asap>.

Brookhaven Women in Science Event

Talk: Women Scientists' Glass Ceiling, 10/9

Elga Wasserman, author and science, law, and university administrator, will lecture on "Breaking the Glass Ceiling: Myths and Realities for Women Scientists," at noon on Thursday, October 9, in Berkner Hall. All are welcome to this free talk.

Wasserman earned a Ph.D. in organic chemistry at Harvard University, 1949, and a J.D. from Yale Law School, 1976. She served as Assistant Dean of Yale Graduate School, and later became Special Assistant to the Yale President. After practicing family law 1977-94, she is now conducting research on eminent women in science.

Published weekly by the Media & Communications Office for the employees, facility-users, and retirees of Brookhaven National Laboratory.

LIZ SEUBERT, editor
JOHN GALVIN, reporter
ROGER STOUTENBURGH, photographer

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

Bldg. 134, P.O. Box 5000
Upton NY 11973-5000
phone (631) 344-2345, fax (631) 344-3368
e-mail: bulletin@bnl.gov
INFOLine: (631) 344-INFO (4636)