

## Taking Charge of Molecular Wires

Findings have potential applications in the solar energy industry

Scientists from BNL and the University of Florida have uncovered information that may help “molecular wires” replace silicon in microelectronic circuits and/or components in solar energy storage systems. The scientists were studying how electric charge is distributed in polymer molecule chains that are several nanometers, or billionths of a meter, in length.

John Miller of the Chemistry Department, the study’s lead scientist, presented the group’s results on Sunday, August 22, at the 228th national meeting of the American Chemical Society in Philadelphia, Pennsylvania. Collaborating on this study with Miller were Alison Funston and Norihiko Takeda, both of BNL’s Chemistry, and Kirk Schanze and Eric Silverman of the University of Florida. This research was funded by the Office of Basic Energy Sciences within DOE’s Office of Science.

“Long molecules that can act as molecular wires, of which there are many variations, are one type of nanoscale object with the potential to lead to new technologies, due to their ability to conduct electricity and very small size,” said Miller. “But unlike conventional metal wires, polymer nanowires need assistance in order to conduct.”



Alison Funston and John Miller

“Using a cluster of high-energy electrons from an accelerator, we can quickly add an extra negative or positive charge to a polymer molecular wire,” he continued. “When the end of the wire contains a chemically attached ‘trap’ molecule, one where the electrons will be at a lower, more stable energy, the charge moves to it. This allows us to ‘see’ that the wires conduct electrons quickly, and over long distances.”

One potential application for this finding is in the solar energy industry, particularly in a new field called “plastic solar.” In conventional solar cells, incoming solar energy is transferred to the electrons in a semiconducting material, such as silicon, which knocks many of them loose. These electrons are guided to an electrode, creating a current that can be drawn off and used.

The plastic solar movement aims to replace materials like silicon with polymer nanowires, which are cheaper and lighter. Another advantage of plastic solar cells is their physical versatility. Due to the flexible, bendable nature of polymer materials, plastic solar cells could be placed in areas of greatly varying size and surface type. Conventional cells are rigid and costly, and the current production method limits their size.

In plastic solar cells constructed to date, electrons must jump from one polymer wire to another in order to reach the electrodes. But as the electrons leave one wire in order to jump to the next, they encounter barriers, which require larger amounts of energy to traverse than required by the barriers that hinder electron movement within typical nanowires. This slows down the electrons.

Miller and his collaborators want to learn how to eliminate the barriers. But first, they must understand how the electrons move within single polymer wires — the amount of energy the electrons need, for example. Later, this information can be used to choose the best polymer conductors and design structures for plastic solar cells.

To observe electrons move down a polymer wire, the group immersed the wire in an organic fluid and shot high-energy electrons through the fluid. The electrons were supplied by BNL’s Laser-Electron Accelerator Facility (LEAF), which accelerates electrons to high energies for research applications. The energetic LEAF electrons either kick away some of the fluid molecules’ electrons or allow the molecules to give up “holes” — mobile, empty spaces that carry positive charge. As a result, the submerged nanowire receives one of these electrons or holes.

“This new method injects extra negative or positive charges into the wires and allows us to observe the charges quickly diffuse across it. This observation is a key step toward developing polymer nanowires that are good conductors,” Miller said.

In the future, Miller and his group also plan to look for ways to increase the conduction efficiency of the wires.

— Laura Mgrdichian

## Parney Albright, DHS, Visits BNL

Parney Albright, Assistant Secretary of Homeland Security, Science & Technology Division of the Department of Homeland Security, came to BNL on August 27. After a welcome by BNL Director Praveen Chaudhari, Interim Deputy Director for Science & Technology Peter Bond, Brookhaven Site Office Manager Michael Holland, and Associate Laboratory Director for Energy, Environment & National Security Ralph James, Albright and his executive assistant Leslie Stone toured facilities and met with several scientists over lunch.

During a visit to the Radiation Detector Testing & Evaluation Center, James discussed portal monitors and hand-held monitoring devices and the results of BNL’s testing and evaluation of commercial, off-the-shelf radiation detectors for homeland security applications.

In touring the Instrumentation Division, the party learned about BNL’s advanced detectors: Peter Vanier, Instrumentation, described the xenon gamma detector; Creighton Wirick, Department of Environmental Sciences (ES) Chair, spoke on the standoff detection capabilities of the Raman Mini-LIDAR chemical and biological sensor system; and Graham Smith, Instrumentation, explained how advanced neutron detectors and low-noise electronics for nuclear spectroscopy and imaging can be used to further national security.

A visit to the National Synchrotron Light Source (NSLS) was also on the agenda. Peter Siddons, NSLS Department, gave an over-



At BNL’s Radiation Detector Testing & Evaluation Center are: (from left) Leslie Stone, Department of Homeland Security (DHS); Peter Bond, BNL; Ralph James, BNL; Parney Albright, DHS; and Joseph Indusi, BNL.

view of the wide range of research in biology and physics, chemistry and geophysics, materials science and medicine, performed by Lab scientists and some 2,500 researchers from the U.S. and overseas at this facility. Aleksey Bolotnikov of the Nonproliferation & National Security Department discussed the expectations made possible by another kind of radiation detector utilizing cadmium zinc telluride crystals.

At the Lab’s Relativistic Heavy Ion Collider (RHIC), the visitors saw another example of how basic research results in breakthrough detector capabilities. Tim Hallman of the Physics Department described the RHIC program and the giant STAR detector, conceived and developed with three other detectors to track instantaneously thousands of subatomic particles formed when

two beams of heavy ions are crashed together at nearly the speed of light, to recreate and reveal what happened in the earliest stages of the universe.

In the environmental sciences area, Albright learned about BNL’s contribution to the urban dispersion program and work on consequence management for radiological dispersal devices, topics discussed by Michael Reynolds, and Paul Kalb and Jeff Gillow, all of ES, respectively. The Lab’s forefront research in areas involving biological security was represented by John Dunn of the Biology Department, who displayed real-time DNA sequencing for agricultural-biological terrorism counter measures, and Subramanyam Swaminathan, also of Biology, who described his work on ultra-sensitive assays for botulinum toxins. — Liz Seubert

## Lab Welder Tom Imperial’s Alertness Pays

Finding gasoline-contaminated argon cylinder results in site-wide response

On June 25, welding operations across the Lab site were stopped when Thomas Imperial, a safety-conscious welder in the Central Fabrication Services Division, detected a strange odor while using a K-sized cylinder of argon 4.8 K-size gas during a welding operation.

Says Imperial, “I was having difficulty while I was welding, so I made a few adjustments. Then, I noticed a strange odor. I immediately stopped what I was doing and reported it to my supervisor, Al Farland.”

Farland decided that all welding should cease until the cause of the odor was determined. He had all nearby argon 4.8 K-size gas cylinders removed from service and notified safety personnel and the division manager.

The Industrial Hygiene Group, which is part of the Environment, Safety, Health & Quality Directorate, tested the remaining argon 4.8 K-size gas cylinders to see if they could be explosive and found them to be safe. The gas cylinder warehouse was notified as well. The original bottle used by Imperial was then sent back to the supplier to be tested by an independent laboratory, which found that the cylinder contained greater than 2,500 parts per million of gasoline. Further investigation determined that the cylinder actually

contained 1.5 gallons of gasoline.

Subsequently, Farland and Joseph Labas, a procurement quality engineer in BNL’s Procurement & Property Management Division, visited the supplier and found that commercially supplied K-size cylinders could be contaminated with liquids and could pass through the supplier’s quality control at their facility.

As a precautionary measure, a site-wide investigation was done and, within three days, all K-size cylinders with the same lot number were identified and returned to the supplier. Within a week, all K-size cylinders from this supplier were exchanged. The risk of us-

ing compressed gas from this supplier is being reevaluated.

Says Imperial, “I am thankful I was using argon gas, and not oxygen, because that could have resulted in an explosion. I was happy to see Lab management react so quickly and appropriately to my concern.”

Tom Lambertson, Central Fabrication Services Manager, adds, “The reaction of Tom Imperial shows a high regard for safety. Upon his notification to Al Farland all welding operations ceased and serious consequences were avoided. I commend Tom for doing exactly the right thing.” —Jane Koropsak



Thomas Imperial

## 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 Recreation Bldg. and at the laundry, both 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](http://www.bnl.gov/esol/schedule.html) for schedule. Jen Lynch, Ext. 4894.

#### Mondays: BNL Gospel Choir

5:15-7 p.m. Berkner Hall. All faiths are welcome. [www.bnl.gov/bera/activities/choir/](http://www.bnl.gov/bera/activities/choir/).

#### 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](mailto:rusek@bnl.gov).

#### Monday & Friday: Jazzercise

Noon-1 p.m., Rec. Hall. Preregistration is required. Christine Carter, Ext. 5090.

#### Tuesdays: Welcome Coffee

10-11:30 a.m., Rec. Hall. First Tuesday of every month is special for Lab newcomers and leaving guests. Cindy Ottemann, 849-2646.

#### Tuesdays: BNL Music Club

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

#### Tuesdays: Jiu Jitsu Club

6:30-7:30 p.m. in the gym. All levels, ages 6 and above. \$10 per class. Tom, Ext. 4556.

#### 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](http://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. Eight-week session. \$20 to attend once a week; \$40 to attend twice a week. Ext. 2873 for more information.

#### Tues. & Thurs: Upton Nursery School

The school is on summer break. Contact Alison Tilt, Ext. 4465, or [tilt@bnl.gov](mailto:tilt@bnl.gov), for information on Sept. enrollment.

#### Wednesdays: On-Site Play Group

10 a.m.-noon. Rec. Hall. An infant/toddler drop-in event. Parents meet while children play. Kati Petreczky, 821-4131.

#### 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.

#### Thursdays: Reiki Healing Class

Noon-1 p.m., Bldg. 211. Nicole Bernholz, Ext. 2027.

#### Thursdays: FreshDirect Delivery

3:30-5:30 p.m., Berkner Hall parking lot.

#### 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](mailto:rudy@bnl.gov).

### — NEXT WEEK —

#### Monday, 9/6

##### Lab Closed for Labor Day Holiday

BNL will be closed on Monday to celebrate the Labor Day Holiday. No Bulletin will be issued on Friday, September 10.

#### Tuesday, 9/7

##### Caring Friends Meet

Noon, Berkner Hall, Room D. All are welcome to join an informal support group serving as a resource for individuals experiencing grief following the loss of a loved one. Call Pat Hein, Ext. 3962, or Gerry Van DerLaske, Ext. 3476.

#### Wednesday, 9/8

##### Rifle & Pistol Club Meeting

Noon, Conference Room, Bldg. 535. All are welcome. Come and learn about club activities and obtain assistance and instruction in the maintenance and safe use of firearms. Jim Durman, Ext. 8236, or [www.bnl.gov/bera/activities/rpc/](http://www.bnl.gov/bera/activities/rpc/).

## New Requirements for Visitors, Guests

A combination of an update of DOE order 142.3 (Unclassified Foreign Visits and Assignments Program) and BNL training regulations has resulted in more rigorous requirements being put in place for visitors and guests coming to BNL.

As outlined in the Monday Memo, effective September 7:

### Entering the Site — Changes

- All individuals holding a purple "Guest" photo ID badge must access the site through the Main Gate only.
- All guests and contractors, including U.S. citizens with "USA" on his or her current badge, will have their badges scanned as they enter the site.
- When two entry lanes are in use, guests should use the right lane when entering the Main Gate.

### Visitor Notification Form — Changes

Changes have also been made to the Visitor Notification Form and the process for visitors who do not hold valid BNL identification badges, as follows:

- The form found at [https://www.bnl.gov/ssd/bnl\\_only/GateForm.asp](https://www.bnl.gov/ssd/bnl_only/GateForm.asp) must be completed for all visitors who have not been issued an official BNL badge.
- Temporary passes for visits of three days or less will be issued at the Main Gate. New temporary visitor passes will include a photo of the individual.
- Visitors planning to stay longer than three days can obtain an extension from the Building 30 Badging Office.
- Only BNL and Brookhaven Site Office employees or points of contact for contract employees will be able to submit a Visitor Notification Form.
- All non-U.S. citizen visitors who do not hold valid BNL identification badges must first complete the guest registration form found at <https://fsd84.bis.bnl.gov/guest/guestRegist.asp>.

### Open-to-the-Public Events — Reminder

In addition to the changes outlined above, employees are reminded that current policy requires that open-to-the-public events need written approval from the Director's Office. Only a single yearly submission need be submitted for recurring events. Requests should be submitted 30 days in advance to Mike Bebon, Deputy Director for Operations, using the Foreign Attendance Request form, Special Practice Instruction (SPI) 5-09. The form is available on SBMS at <https://sbms.bnl.gov/ld/ld12/ld12d251.htm> (Attachment f is the form). After approval is obtained, the requester will then be able to complete the Main Gate Notification Form. This allows temporary paper passes to be printed with the proper information on them. The approved open-to-the-public event can then be entered into the Events Calendar on the BNL homepage or be advertised in the Bulletin.

## Walk to Fund Cancer Research

The 11th Annual Walk for Beauty will be held on Sunday, September 19, in Stony Brook. The annual 4/6 kilometer walk through scenic, historic areas of the village raises funds for breast and prostate cancer research at Stony Brook University.

At the Lab, the Women's Program Advisory Committee is gathering a BNL team to "walk the walk."

A registration form, walker sponsor sheet, and driving directions, are available at [www.bnl.gov/diversity/womens%20new.asp](http://www.bnl.gov/diversity/womens%20new.asp). All participants are responsible for their registration and fee of \$20 or \$50 for sponsors. If you have any questions or would like to help, contact Stasia Scocca, Ext. 3979 or [scocca@bnl.gov](mailto:scocca@bnl.gov).

## Financial Planning Seminar, 9/15

All are welcome to attend a financial planning workshop provided by Fidelity Investments on Wednesday, September 15, from noon to 1 p.m., in Berkner Hall. Workshop participants will learn how to:

- identify key factors that may influence the way you invest
- learn about the economy's impact on investment performance
- discover the ins and outs of mutual-fund investing
- learn about indexes, benchmarks, and rating services
- gain insight on risk measures, such as beta and standard deviation

Pre-registration is necessary for this workshop. Check your mailbox for registration forms. Return completed forms to Joyce Wund, Bldg. 185, by Wednesday, September 1.

## Arrivals & Departures

### Arrivals

Shailendra Chouhan ..... NSLS  
Charles Hicks ..... Biology  
Guiqing Hu ..... Biology  
Minghui Hu ..... Biology  
Yangsoo Kim ..... Chemistry  
Se Young Kwak ..... NSLS  
Charles Peters ..... C-A  
Toshiya Tanabe ..... NSLS

### Departures

Shelby Bowers ..... Rad. Ctrl.  
Thomas Brown ..... C-A  
Mark Harvey ..... Physics  
George Hendrey ..... Applied Sci.  
Yan Jiang ..... Chemistry  
Anna Lovejoy ..... Medical  
Leslie Malm ..... C-A  
Laura Sbarra ..... HR/OMC  
Zhen Song ..... Chemistry  
Laura Taddonio ..... C-A  
Hyungje Woo ..... Physics

## Fidelity Investment Counseling, 9/15

A Fidelity Investment representative will be at the Lab on Wednesday, September 15, to hold sessions with individual employees interested in learning more about their retirement-savings and investment options. Schedule one of the 45-minute appointments by calling (800) 642-7131.

## Malfunctioning Vending Machines

The phone number given to contact in case of problems with on-site vending machines is temporarily out of service. If you need reimbursement from a machine that malfunctions, send your request via Lab mail, to "Vending Machines," Bldg. 179B.

## Hispanic Dance Performance, 9/18

### Sol y Sombra performs Flamenco Music and Dance



BNL's Hispanic Heritage Club will sponsor a Hispanic dance performance in Berkner Hall on Saturday, September 18, at 7 p.m., featuring the Sol y Sombra Dance Company in a program called "Ida y Vuelta: Dances of Spain and Latin America."

Advance-sale tickets at the BERA Sales Office in Berkner Hall cost \$12 for adults and \$6 for children under age 10. At the door, tickets cost \$15 for adults and \$8 for children under 10. For more information, call Ext. 3347.

## Hispanic Heritage Club: Volunteers Needed

The Hispanic Heritage Club needs volunteers to help as ushers, stagehands, etc., for the Flamenco concert that the club is sponsoring with BERA at Berkner Hall on Saturday, September 18, at 7 p.m. For more information or to offer your assistance, contact Omar Gould, Ext. 2656 or [ogould@bnl.gov](mailto:ogould@bnl.gov).

## Join the BNL Walk for Diabetes Research, 10/17



Last year, 187,000 people died from diabetes, the sixth leading cause of death by disease in the United States. According to the Center for Disease Control, more than 18 million Americans now have diabetes — maybe you, your friends, or family members are among them.

But all over America, people are joining together to collect funds to be used to combat the disease. Supported by the BNL Volunteers in Partnership program, Ruth Comas, Staff Services Division, is forming a BNL team to join the October 17 Suffolk County Walk to "Blow Away Diabetes" with forefront research.

The 5-kilometer (3.1-mile) walk winds through the beautiful suburban campus of the New York Institute of Technology in Central Islip, ending at the Student Activity Center where a fitness festival, youth zone, and refreshments will be located.

Registration begins at 9 a.m., and the walk starts at 10 a.m. There is no registration fee. Each team member is required to have a sponsor form filled, the average sponsorship being \$150 per member. If you are interested in joining the walk, or wish to become a sponsor, contact Comas at [comas@bnl.gov](mailto:comas@bnl.gov).

## Long-Term Care Planning Seminar, 9/30

Join representatives from American Express Financial Advisors, Inc. on Thursday, September 30, at 5:30 p.m. in Berkner Hall, Room B, where they will present the "Money Talks" financial and retirement planning seminar "What You Need to Know About Long Term Care Planning."

Topics include: Different types of nursing home care, alternative options to a nursing home, Medicaid income limits, gifting and look-back periods, spouse's financial responsibility, options to protect your estate, gift assets to individuals/trusts, and life estate planning.

Check your mailbox for registration forms. Return completed forms to Joyce Wund, Bldg. 185, by Thursday, September 16.

## Hospitality Trip To Bronx Zoo, 9/19

The Hospitality Committee will sponsor a bus trip to the Bronx Zoo — one of America's largest metropolitan zoos — on Sunday, September 19. Participants will see regular exhibits and also, the "Extreme Warhol" exhibit, featuring screen prints of endangered animals by artist Andy Warhol. The zoo will also be celebrating Hispanic Heritage Weekend with music, games, and face painting, plus a special exhibit of animals from Latin America.

The bus will leave the Lollipop House in the apartment area at 9 a.m. and return to BNL by about 6:30 p.m., leaving the zoo at 4:30 p.m. Bus tickets must be reserved in advance; contact Monique de la Beij, [mdelabey@optonline.net](mailto:mdelabey@optonline.net) or 399-7656. Bus tickets cost \$10/adult and \$5/each child of 2-12. Children under 2 are free. After reserving, pay in advance at the Recreation Building, on Tuesday, September 14, 11-11:30 a.m. or on Wednesday, September 15, 10:30-11am. Zoo admission tickets will be bought at the zoo; \$11/adult, \$8/child of age 2-12.

## TIAA-CREF Retirement Counseling, 9/13, 29, 30

A TIAA-CREF representative will visit BNL on Monday, September 13; Wednesday, September 29; and Thursday, September 30; to answer employees' questions regarding the TIAA-CREF retirement plan. Questions might be: TIAA and CREF differences; allocating funds between TIAA and CREF; options, flexibilities with TIAA-CREF; and retirement options. For a 45-minute appointment, call Duane Walden, (800) 842-2733, Ext. 7289.

**Congratulations, '03-04 Volleyball Champs**



Roger Stoutenburgh D01140804

UCB Roofing Co. sealed the Open League A championship by defeating Death Volley in 3 sets. Roofers are: (standing, from left) Joe Greco, Travis Shrey, and Art Sedlacek; (sitting, from left) the anonymous stunt double for Tom Hayes and Kevin Smith, Alain Domingo, and Greg Marr.



Joseph Rubino D0120804

Easy Spikers spiked their way to victory in four sets to snatch the Open League B championship from Late Entry. Easy Spikers are: (standing, from left) Terry Sullivan, Jay Adams, and John De Boer; (sitting, from left) Gloria De Boer, Dan Mullaly, and DJ Greco. Not pictured: Rui Mei Ma.



Roger Stoutenburgh D0110804

Upsetters took their name to heart and upset rivals Nuts & Bolts in a five-set match to take the League 2 championship. The Upsetters are: (standing, from left) Tony Hammil, Izzy Garcia, DJ Greco, Dina Tullo, and John Butler; (sitting, from left) Antoinette Russo, Jenn O'Connor, and Larry Musso.



Roger Stoutenburgh D01130804

Last Minute was on time and on fire to win the League 3 championship from Upton Ups in four sets. The Last Minutes are: (standing, from left) Tirre Farmer, Linda Farmer, Rich Alles, Katie Farmer, and Gary Polonski; (sitting, from left) Melissa Abramowitz, Melissa Alles (team cheerleader!), and Scott Spencer. Not pictured: Michael Millardi.

**Hurry to the Hackensacks!  
Evening of Live Music, Dancing, 9/17**

**T**he BNL Music Club and the BNL Social & Cultural Club will sponsor an evening of dancing, sophisticated fun, and high energy, on Friday, September 17, at 7:30 p.m., featuring The Hackensack Men and The Trenton Horns. The Hacks, as they are affectionately known, have been entertaining audiences along the East Coast for nearly 20 years.

Ten talented professionals, the Hacks include two front men, drums, bass, guitars, piano, percussion and a three-piece horn section — and they dance as well as they play. The Hacks get your feet tapping to the best of live soul, R&B, swing and rock & roll such as the music of the Temptations, Sam & Dave, Wilson Pickett, and the Blues Brothers. To facilitate dancing, the show will be held in the Brookhaven Center North Room. All tickets are \$10. Purchase tickets at the BERA Sales Office or call Ext. 5257.

**Learn to Dance**

The BNL Ballroom Dance Club resumes weekly lessons with instructor Giny Rae in the North Ballroom at the Brookhaven Center on Wednesday, September 8. Join a friendly group and have fun. Lessons are open to BERA members and their guests (one guest per member). The initial six-week series, which costs \$24 per person per series, will be:

- 5:15 - 6 p.m. Introductory/Newcomer - Swing, Foxtrot, Mambo
- 6 - 7 p.m. Beginner - Swing, Foxtrot, Mambo
- 7 - 8 p.m. Advanced beginner - Rumba, Cha-Cha, Tango

To sign up or for information, contact John Millener, Ext. 3853, millener@bnl.gov, or Madeline Windsor, Ext. 5069, windsor@bnl.gov.

**Volleyball News**

For its 2004-2005 season, the BERA Volleyball League resumes play on Monday, October 11. The league offers teams for players of every ability and skill level, so come and join in the fun! All players are invited to get warmed up for the season by playing open volleyball in the gym on Monday and Wednesday nights.

**Captains' Meeting, 9/15**

Captains interested in fielding teams for the league should attend the captains' meeting on Wednesday, September 15, at noon in Berkner Hall, Room C. Bring a preliminary roster with you.

For more information, visit the league's web site at [www.vb.bnl.gov](http://www.vb.bnl.gov), or contact Marie Van Buren, Ext. 4727 or [vanburen@bnl.gov](mailto:vanburen@bnl.gov); or Travis Shrey, Ext. 7451 or [shrey@bnl.gov](mailto:shrey@bnl.gov).

**On-Site Service Station — Tip of the Month**

As cold weather approaches, batteries are subject to failure. If you have a 1999 vehicle with the original battery, it is at the end of its useful life and should be changed. If you are not sure, the on-site station, Upton Industries, Inc., will be glad to test it. The station carries a complete line of Delco professional series batteries. For more information, call Ext. 4034.

**New Book Explains How to Communicate Environmental, Safety, & Health Risks**

Learn how to communicate risks to your clients and stakeholders effectively with the third edition of *Risk Communication*, published by Battelle Press. Significantly expanded, this handbook includes new sections on communicating during emergencies and developing messages, plus updates on using technologies and choosing visuals. Battelle staff can receive 40 percent off the cover price of \$34.95 by ordering the book from Battelle Press, [www.battelle.org/bookstore](http://www.battelle.org/bookstore). For more information, contact Kristin Manke, [manke@battelle.org](mailto:manke@battelle.org).

**BNL Camping Club B-B-Q, 9/18 — Join In!**

All BNLeers are welcome to attend the BNL Camping Club's annual bar-b-que and membership drive on Saturday, September 18, at noon in the BNL Campgrounds by the ball fields. There will be free hot dogs, activities for children, dance music by DJ. Ray Dumont, and an evening movie. Bring your own drinks. Reservations are necessary and can be made by contacting Tom Seda, Ext. 5350.

**Calendar**

(continued)

**\*Ballroom Dance Lessons Start**  
5:15-8 p.m., Wednesdays. North Ballroom, Brookhaven Center. 3 sets of lessons \$24/series. See notice, below, left. Register with John Millener, Ext. 3853 or [millener@bnl.gov](mailto:millener@bnl.gov), Madeline Windsor, Ext. 5069, [windsor@bnl.gov](mailto:windsor@bnl.gov).

**Thursday, 9/9**

**\*Blood Drive**  
9:30 a.m.-3 p.m., Brookhaven Center. Those eligible to donate are people in good health between the ages of 17 and 75 who weigh at least 110 pounds. Restrictions may apply to individuals from the United Kingdom and Europe. Donors should have a photo ID and know their social security number. Contact Susan Foster at Ext. 2888, or e-mail [donate\\_blood@bnl.gov](mailto:donate_blood@bnl.gov) with your name, phone extension, and preferred time to donate.

**\*BERA-Sponsored Book Fair**  
10 a.m.-2 p.m., Berkner Hall. A wide selection of books at discount prices will be on sale.

**Friday, 9/10**

**\*BERA-Sponsored Book Fair**  
10 a.m.-2 p.m., Berkner Hall.

**— WEEK OF 9/13 —**

**Wednesday, 9/15**

**\*Financial Planning Workshop**  
Noon-1 p.m., Berkner Hall. All are welcome to attend a financial planning workshop by Fidelity Investments. Return completed the registration forms each employee to Joyce Wund, Bldg. 185. See also notice page 2, left.

**Friday, 9/17**

**\*Dance to Hacks, Trenton Horns**  
7:30 p.m. Brookhaven Center North Room. Sponsored by the BNL Music Club and BNL Social & Cultural Club. All are welcome to dance or listen to the Hackensack Men and Trenton Horns. Tickets are \$10 at BERA Sales Office or call Ext. 5257. See notice, above left.

**Saturday, 9/18**

**\*Camping Club B-B-Q**  
Noon, BNL Campgrounds by the ball fields. All BNLeers are welcome to attend the BNL Camping Club's annual bar-b-que and membership drive. Free hot dogs, activities for children, dance music, evening movie. Bring your own drinks. Reservations are necessary. Tom Seda, Ext. 5350.

**\*Hispanic Dance Performance**  
7 p.m., Berkner Hall. BNL's Hispanic Heritage Club sponsors the Sol y Sombra Dance Company in a program called "Ida y Vuelta: Dances of Spain and Latin America." See notice, page 2. (Volunteer ushers, stagehands needed. Call Ext. 2656 or [ogould@bnl.gov](mailto:ogould@bnl.gov).)

**Sunday, 9/19**

**\*Bronx Zoo Trip**  
9 a.m. - 6:30 p.m. Bus tickets cost \$10/adult, \$5/child of 2-12, under 2, free, advance reservation necessary. Contact Monique de la Beij, [mdelabey@optonline.net](mailto:mdelabey@optonline.net) or 399-7656. Pay at Rec. Bldg., Tues., 9/14, 11-11:30 a.m. or Wed., 9/15, 10:30-11 a.m. Zoo admission: \$11/adult, \$8/child of age 2-12. See notice, page 3.

**\*Walk for Beauty, Aid Cancer Research**  
Join the Lab team led by the BNL Women's Program Advisory Committee in a 4/6 kilometer walk around Stony Brook Village to aid research on breast and prostate cancer. See page 2 and [www.bnl.gov/diversity/womens%20new.asp](http://www.bnl.gov/diversity/womens%20new.asp). All are welcome.

**— WEEK OF 9/20 —**

**Wednesday, 9/22**

**Brookhaven Lecture**  
4 p.m. Berkner Hall. Martin Blume, BNL and American Physical Society will talk on "Trends in Scientific Publishing." All are welcome to this free public event.

**— WEEK OF 9/27 —**

**Wednesday, 9/29**

**Costco Wholesale Club Demo**  
11 a.m.-3 p.m., Berkner Hall.

*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](mailto:bulletin@bnl.gov). Write "Bulletin Calendar" in the subject line.*

**HEAD TEACHER** - Pre-school cooperative, a small, fun cooperative nursery school for 3- to 5-year-olds, on BNL site, seeks an experienced, certified Head Teacher for a part-time position. Successful candidate should have at least six months' teaching experience, preferably as a Head Teacher. We are looking for an enthusiastic, sunny personality to develop curriculum and schedule, conduct parent/teacher conferences, manage Teaching Assistants and parent helpers, and work with the school's board. Will be expected to establish and maintain daily routine and feel comfortable and confident with multicultural children. We offer normal kindergarten readiness topics with a focus on language and social skills in a warm, friendly, pressure-free environment. We follow the Longwood calendar. Contact 727-8082 or send your resume to Search Committee, P.O. Box 324, Upton, NY 11973.

## 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 employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present employees within the Laboratory; and (3) outside applicants. In keeping with the Affirmative Action Plan, selections are made without regard to age, race, color, religion, national origin, sex, disability or veteran status. Each week, the Human Resources Division lists new placement notices, first, so employees may request consideration for themselves, and, second, for open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all people. Except when operational needs require otherwise, positions will be open for one week after publication. For more information, contact the Employment Manager, Ext. 2882; call the JOBLINE, Ext. 7744 (344-7744), for a list of all job openings; use a TDD system to access job information by calling (631) 344-6018; or access current job openings on the World Wide Web at [www.bnl.gov/HR/jobs/default.htm](http://www.bnl.gov/HR/jobs/default.htm).

### LABORATORY RECRUITMENT - Opportunities for Laboratory Employees.

**TB4038. OFFICE SERVICES ASSISTANT** - Must have the ability to transcribe numbers and words accurately, possess good communication and interpersonal skills, and knowledge of Word, Excel, and WordPerfect. Will be responsible for issuing identification badges and vehicle stickers, entering data into multiple databases, filing and other customer service duties. In addition, will work as a back-up in other areas of Division. Safeguards and Security Division.

### OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

**MK4194. POSTDOCTORAL RESEARCH ASSOCIATE** - Requires a Ph.D. in biochemistry or biophysics with experience in x-ray crystallography to work on a project to solve a *de novo* structure of a membrane metal transporter (*JBC* 279:12043-50, 2004; *JBC* 279:17173-80, 2004; *Science* 290:481-6, 2000). Proficiency in computing (Unix and Linux) required. Experience in handling difficult diffraction data sets (with high anisotropy, mosaicity, and relatively low resolution) is preferred. Excellent opportunity for career development in the field of structural biology of membrane proteins. NLSL offers an outstanding environment for crystallography. Under the direction of D. Fu, Biology Department.

**TB3540. MEDICAL ASSOCIATE II** (part-time, term appointment P-5) - Requires a Ph.D. in a psychology-related field, extensive training and experience in ERP recording, and lab management. An interest in pharmacological studies of drug abuse a plus. Research will involve work on human models of drug abuse and employing the techniques of fMRI and ERP brain imaging. Will join a large neuroscience group interested in the brain actions of cannabinoids, cocaine, methylphenidate, nicotine and other drugs of abuse. Imaging facilities include a small animal PET scanner, two clinical PET scanners, SPECT, small animal MRI and a high field clinical MRI. Employment is contingent upon successful completion of a background check by the DEA (Drug Enforcement Agency). Medical Department.

**NS3401. FIREFIGHTER/EMT** (Two positions, term appointments) - Requires five years' progressive experience in a fire department, qualifications as a motor pump operator on a Class A pumper, and possession of a current NYS EMT-D certificate. In descending order of importance, the following criteria will be used for selection in the event two or more individuals meet the above criteria: certified OSHA Hazardous Material Technician; Certified in Confined Space Rescue; current line officer in home department; and possession of an associate degree or higher in fire protection technology. Must be willing to work shifts at the completion of training period. Emergency Services Division.

**TB3188. SR. SECRETARY** (part-time, term appointment) - Requires specialized training plus a minimum of three years' relevant work experience, of which two years should be as a Secretary at the Laboratory, and fluency in Japanese. Must demonstrate com-

## Environment, Safety, Security and Health

### How do BNL's ESSH policy commitments apply to you?



As part of the process for three pilot organizations — the Central Fabrication Services Division, the Collider-Accelerator Department and the Plant Engineering Division — to achieve Occupation, Health, Safety Assessment Series 18001 Registration (OHSAS 18001), the Lab will undergo a final audit, September 22-24. If the auditors conclude that these organizations have met the mandates for registration, the Lab will be

the only facility in the DOE complex to have elements of its operations achieve such status. This is the third of a four-part series that will help you understand how BNL's ESSH policy commitments apply to you. The complete policy is available on the Environment, Safety, Health and Quality Directorate (ESH&Q) website at <http://www.bnl.gov/ESHQ/ESSH.asp> or via the A to Z site index under ESSH Policy.

**As a Lab employee, you should be prepared to answer questions that the auditors might ask. Your answers should be specific to your own work. An example of what to expect is below.**

### Know the Policy:

We will work in compliance with DOE Programs and systematically integrate safeguards and security into management and work practices at all levels, so that the laboratory missions are accomplished in a safe and secure manner.

**Q: How can you assist in keeping BNL a secure workplace?**

**A: I will wear my badge at all times and register my vehicle(s) with the Safeguards & Security Division (SSD) and display the vehicle sticker. I will use the visitor notification form found on the BNL homepage when I am expecting a visitor, and I will notify the Foreign Visits and Assignments Administrator at least 30 days before the arrival of a foreign visitor. I will comply with the Lab's cyber security, classified information, and export control procedures. I will lock offices and buildings when they are not occupied, ensure that equipment and material are adequately protected, and report any unusual circumstances to SSD.**

Any questions regarding OHSAS 18001 Registration or Occupational Safety and Health (OSH) issues may be directed to BNL's OSH management representative James Tarpinian, Assistant Laboratory Director for Environment, Safety, Health & Quality, Ext. 8370 or [tarpinian@bnl.gov](mailto:tarpinian@bnl.gov).

Direct any questions regarding safeguards and security issues to Leonard Butera, SSD Deputy Manager, Ext. 4691 or [lbutera@bnl.gov](mailto:lbutera@bnl.gov).

petence in administrative and/or technical secretarial skills such as word processing, office practices and procedures; knowledge of Laboratory policies, practices and procedures is highly desirable. Responsibilities include operating word processing and Lab-wide administrative computer systems, generate, edit and distribute documents and correspondence, arrange travel/reservations for Japanese guests/visitors, simple document translations to Japanese, communication with organizations which are affiliated with the KEK collaboration, and provide diversified administrative functions for the KEK Account Manager. Physics Department.

### Motor Vehicles & Supplies

02 MURRAY MINIBIKE - blue w/rear suspen., on/off key switch, instruc. video, manual, 50 mi. \$400. Ext. 5952 or 689-7957.

02 HONDA ACCORD - a/t, a/c, p/s, p/b, p/w, excel. cond, anti theft, leaving sale. 176K mi. \$14,900. Yongbin, Ext. 2835 or [leng@bnl.gov](mailto:leng@bnl.gov).

01 YAMAHA YZFR-1 - 5-spd., Champ Ltd. ed. new tires, paint, parts, 100 mi. \$8,000; 93 Yamaha YZ125. \$1,500. 929-4663.

99 MERCURY SABLE WAGON LS - a/t, a/c, p/s, p/w, 24v DOHC V6 eng., abs, airbags, pwr. seats, 44.5K mi. \$6,500. 981-2471.

99 MERCURY GRAND MARQUIS - a/t, a/c, p/s, p/b, p/w, leather seats. 55.32K mi. \$8,500. 689-5236.

99 DODGE CARAVAN LE - 4-dr., 3.3L, V6, remote start, excel. cond., 82K mi. \$6,100. John, Ext. 8082 or 929-8204.

97 TOYOTA CAMRY LE - a/t, a/c, p/s, p/b, p/w, well maint, good cond. 70.3K mi. \$6,200. Ext. 5744 or 929-4440.

97 VW JETTA GL - 5-spd, a/c, p/s, p/b, 120K mi. \$3,500. Larry, 506-0265.

97 WILDERNESS CAMPING TRAILER - slide-out, a/c, heat, sleeps 6, torsion & sway bars, \$9,000/neg. James, Ext. 4843, 567-6227.

93 BUICK LESABRE - a/t, a/c, p/s, p/b, p/w, abs, air bag, leather, fair cond. 73K mi. \$2,300/neg. Ext. 2930.

92 FORD EXPLORER SPORT - a/t, a/c, p/s, p/b, p/w, needs muffler. 120K mi. \$2,000. 258-6210.

92 VOLVO 240 - two ident. wagons in good cond. for one price. 220K mi. and 120K mi. \$1,200. David, Ext. 4019 or 698-2256.

92 TOYOTA CAMRY LE - new trans., tires & belts, a/s, a/t, p/s, p/b, abs, air bags, good cond. 220K mi. \$1,000. Gene, Ext. 7113.

91 NISSAN SENTRA - 5-spd., a/c, 114K mi. \$850; 97 Plym. Grd. Vygr., all pwr., abs, new brakes, 179K mi. \$3,500. Steffen, Ext. 2079.

91 HONDA 3D HATCHBACK - 5-spd, a/c, p/s, p/b, orig. owner, excel. cond., 144K mi. \$2,750. 874-4845.

90 GEO PRISM - a/c, new batt., needs exhaust, otherwise reliable, avail. end of Sept. 176K mi. \$500/neg. Kevin, Ext. 4325.

89 CHEVY S-10 - 4x4, runs well, needs work. 165K mi. \$500/neg. Chris, 289-5827.

88 JEEP CHEROKEE - a/t, a/c, p/s, p/b, p/w, new shocks, tires, brakes, & stereo, well maint. 126K mi. \$5,800/neg. John, 294-6615.

88 MAZDA 323 - \$250. Ann Marie, Ext. 7007 or 473-9678.

87 JEEP CHEROKEE LAREDO - a/t, a/c, p/s, p/w, Sony CD player. 216.45K mi. \$1,100. Ext. 4605 or 680-0780.

RIMS - Ford Explorer alum. deluxe, 15" x 8", excel. cond., \$200. Ext. 3402 or 289-3360.

### Boats & Marine Supplies

19' FIBERGLASS BOAT - '77 w/trailer, 70 hp Johnson, will demo. \$1,200. 588-2740.

14' HOLDER/HOBIE DAYSAILER - '98, jib and main, main is 1 yr. old, ready to sail. excel. cond. \$1,200. John, 475-0711.

32' BRISTOL SLOOP - '77, 3/6" draft, sleeps 5, 3 jibs, galley, head w/holding tank, diesel eng. \$35,000. Thomas, Ext. 5275.

### Furnishings & Appliances

ARM CHAIRS - full bed, lamps, microwave, bookcases, folding tables, dining rm. set, mvg., must sell, prices neg. Victor, 281-1441.

CHEST FREEZER - Frigidaire, 7 cu. ft., 1.5 yrs. old, \$100; Travel bed, Graco "Pack & Play" basic, \$35. Steffen, Ext. 2079.

FREEZER - Westinghouse upright, \$50; Pro-Form Treadmill, \$80. 924-6172.

FURNITURE - lady's vanity, \$6; 2 night tables, \$10 ea.; butcher blk. kit. table, \$10; end table, \$6; more. Ext. 7007 or 473-9678.

WING CHAIRS - (2) maroon, velvet, down filled, Ethan Allen, ask \$100 for both. 258-6210.

BEDROOM SET - Danish, dk. wood, ex. cond. \$400; new mattress, \$40; brass hdbd., \$12. daybed, \$125. Ext. 7007 or 473-9678.

DINING ROOM SET - Colonial style, solid pine, hutch, 8' table w/2 leaves, cust. table pads, 8 chairs. ask \$350. John, 539-2006.

DRYER - Kenmore electric, ex. lg. capacity, used less than 5 hrs., remodeling. \$100. Ext. 2593.

### Sports, Hobbies & Pets

WINDSURFING BOARD - Minstral Equipe II, 12'4", 258-ltr. vol., carb. fbr. retract. daggerbd., \$250. Antonio, Ext. 3319, 821-2317.

## How Many People Does BNL Blood Save?



### Roll Up Your Sleeve: Blood Drive, 9/9

The blood given by BNLers in 2001 (see photos of testing samples above and volunteers below) has saved many people — maybe one of your friends or family. To replenish Long Island's blood supply, BNL is holding a blood drive on Thursday, September 9, from 9:30 a.m. to 3 p.m. in the Brookhaven Center. People in good health between the ages of 17 and 75 who weigh at least 110 pounds are eligible to donate. Restrictions may apply to individuals from the United Kingdom and Europe. Donors should have a photo ID and know their social security number.

To make an appointment, contact Susan Foster at Ext. 2888, or e-mail [donateblood@bnl.gov](mailto:donateblood@bnl.gov). In your message, include your name, phone extension, and preferred time to donate.



## Generous BNLers, Please Save Lives. Donate Blood.

CARDIO GLIDER - \$25; Universal Gym, \$75; 2 ski sets w/poles, \$10 ea.; 2 golf bags, clubs, \$15 ea. Ann Marie, Ext. 7007 or 473-9678.

BICYCLES - women's Murray 26" 15-spd mtn. bike. \$40; Men's Ross 27" 10-spd. \$30; Viza Goped, \$130, all good cond. 567-9025.

### Tools, House & Garden

FOUNTAIN - cement, 5 ft. base, 2 tier, 3 cherubs, ask \$850. 258-6210.

WELDER - elec., Hobart, comm., on castors, associated rods, 2 helmets, cables, mint cond., \$500. Walter, 878-8967.

SNOW THROWER - Lawn-Boy, used twice, cost \$540, sell for \$325. 874-4845.

PHILIPS RCL METER - PM 6303, fast, hi-precis.; to measure resist., capac., induct; manuals, calib. certifi.; ask. \$750. 234-4747.

POOL PUMP - 1.5 hp, 16" sand filter w/valve. Used 2 months, includes vacuum, hose, chemicals, papers. \$150. 225-0642.

RADIAL ARM SAW - Craftsman 10" w/wheel around table/cabinet, excel. cond. \$145. 874-4845.

### Miscellaneous

CAR SEAT - Cosco, almost new, for 5-40 lb. child, \$30. Ext. 5673 or 344-1014.

BABY'S ITEMS - car seat, \$25; crib w/mattress, \$45; both good cond. Chen, Ext. 5066.

YANKEE TICKETS - 4 seats, tier reserved, Sect. 10, Row B, Wed., 9/8 vs. Tampa. Ext. 3288 or 281-7720.

FINE ART PHOTOGRAPHY - see [www.jmjohnson.com](http://www.jmjohnson.com). 447-1381.

### Yard & Garage Sales

MASTIC - moving, must sell household items, lamps, tables, etc. Sat/Sun., 9/4 & 5, 10 a.m.-4 p.m. 229 Main Ave. 281-1441.

MEDFORD - huge multi-family yard sale. Sat., 9/11, 9 a.m.-5 p.m., 22 Petty La., Call 475-5448 or 395-6784.

### Happenings

ART SHOW - "Celebration of the Arts" outdoor art show, Saturday, 9/4, 11 a.m.-6 p.m., Main St., Patchogue. Jim, 447-1381.

SCIENCE SCHOOL - w/ends, for children age 3-15, at SBU, math, physics, art, Russian lang., [www.school-plus.com](http://www.school-plus.com). 608-3467.

### Free

POND FISH - for adoption, various breeds, colors, and sizes. Bob, 727-2346.

ROOSTER - hand-raised, Rhode Island Red/Block American hybrid, needs good home. Ext. 7406.

### For Rent

BELLPORT - lg. 2nd floor studio, priv. ent, yard, deck, storage, lg. bath, no smk./pets, avail. 9/15. \$800/mo./neg. John, 576-6945.

MASTIC - 3-bdrm. ranch, encl. porch, fully fenced yard, totally renovated, all new appliances, washer/dryer, quiet street, util. extra. \$1,700/mo. Marianne, 928-6521.

MEDFORD - 1-bdrm. bsmt. apt., all util. incl. \$950/mo. Tony, Ext. 3084.

N. SELDEN - 3 bdrm., l/r, d/r, eik, full bath, hw floors, deck, yard, parking, includes heat, no pets, sec & references required. \$1,850/mo. Ext. 5675 or 642-7435.

RIDGE - 4-bdrm. Col. w/cath. ent., 2 full bath, eik, den, l/r, laundry, c/a/c, all appl., 1st & last mo. rent, 1 mo. sec. ref., \$2,600/mo. w/access. apt. or \$1,990/mo. Greg, 209-0345.

WADING RIVER - 1-bdrm apt. avail 9/1, eik, lg l/r, full bath, priv. ent., 1 block to LI Sound, 10 min. to BNL, util. incl., single, non-smoker, 1 mo. sec. req. \$900/mo. Richard, 929-3419.

WADING RIVER - 1-bdrm. apt., avail 9/1, eik, lg. l/r, full bath, priv. ent., 1 block to LI Sound, 10 min. to BNL, single, non-smoker, 1 mo. sec., util. incl. \$900/mo. 929-3419.

KISSIMMEE, FL - 3 mi. from Disney, 5 bdrm, 3 bath, pvt. pool and spa, community tennis. \$875 - \$1,225/wk. 889-5303.

### For Sale

CENTEREACH - 2 yr young 4/5-bdrm, 2.5-bath Colonial, 1-car gar., full 1/2 finished bsmt., 1st floor laundry, quiet dead-end street. \$479,900. 981-2471.

EAST ISLIP - 3-bdrm. ranch S of Montauk Hwy., 2 full baths, igp, lg. property backs nature preserve, walk to bay. \$520,000. 258-6210.

GORDON HEIGHTS/MEDFORD - 100' x 173' plot of land, \$150,000/neg. 698-9016.

ARUBA - Timeshare, Marriott, on water, fantastic place. \$17,500/neg. Bob, 467-5853.