

DOE Awards up to \$38 Million To Advance Technology, Reduce Cost of Geothermal Energy BNL's Sugama to work on two projects

On September 9, U.S. Energy Secretary Steven Chu announced \$38 million over three years for projects to accelerate the development of promising geothermal energy technologies and help diversify America's sources of clean, renewable energy. Thirty-two innovative projects in 14 states will develop and test new ways to locate geothermal resources and improve resource characterization, drilling, and reservoir engineering techniques, enabling geothermal energy sources to help reduce the nation's reliance on fossil fuels.

Funded through DOE's Office of Energy Efficiency and Renewable Energy, these advances will play an important role in achieving President Obama's goal of generating 80 percent of U.S. electricity from clean energy sources by 2035.

"The Department of Energy is investing in pioneering new technologies that will further develop the nation's geothermal resources, create skilled jobs for American workers, and help diversify our energy portfolio," said Secretary Chu. "The projects announced today will provide opportunities for clean energy innovations that will ensure the U.S. remains a global leader in geothermal energy development and expand the nation's use of this important renewable energy resource."

BNL Chemist Toshifumi Sugama has been selected to receive up to \$600,000 in DOE funding for two geothermal energy projects.

One project involves developing a cost-effective, multi-functional cement composite to mitigate the corrosion of carbon steel casings at high hydrothermal temperatures.

In another, Sugama and his team will optimize a self-degradable sealer that can prevent the loss of a substantial amount of circulated water-based drilling fluid. The sealer disintegrates, which is necessary for the hydraulic-stimulation process to access geothermal energy.

"The Department of Energy is investing in pioneering new technologies that will further develop the nation's geothermal resources, create skilled jobs for American workers, and help diversify our energy portfolio."

— Energy Secretary Chu

Said Sugama, "This is a very exciting opportunity to accelerate these new-generation technologies for industry. I was heavily involved in BNL's previous 30-year experience working on geothermal research that began in the 70s. This will provide a valuable foundation for the new ideas we'll develop."

This significant investment in clean energy development is part of DOE's comprehensive effort to reduce the cost of geothermal energy, making it more competitive with conventional sources of baseload electricity. Projects will perform feasibility studies before advancing to prototyping and validation, which will be conducted through vigorous laboratory-based research and field testing. The selected projects will support DOE's goals of lowering the cost and financial risk associated with confirming and characterizing geothermal resources and will help to overcome key technical challenges to the reservoir creation and sustainability of enhanced geothermal systems.



Toshifumi Sugama



John Shanklin (left) and Ed Whittle, Biology Department

Scientists Solve Long-Standing Plant Biochemistry Mystery

Scientists at BNL and collaborators at the Karolinska Institute in Sweden have discovered how an enzyme "knows" where to insert a double bond when desaturating plant fatty acids. Understanding the mechanism — which relies on a single amino acid far from the enzyme's active site — solves a 40-year mystery, posed by Nobel Laureate Konrad Bloch, of how these enzymes exert such location-specific control. The work, published in the *Proceedings of the National Academy of Sciences* the week of September 19, 2011, may lead to new ways to engineer plant oils as a renewable replacement for petrochemicals.

"Plant fatty acids are an approximately \$150-billion-dollar-a-year market," said biochemist John Shanklin of BNL's Biology Department, lead author on the paper. "Their properties, and therefore their potential uses and values, are determined by the position of double bonds in the hydrocarbon chains that make up their backbones. Thus the ability to control double bond positions would enable us to make new designer fatty acids that would be useful as industrial raw materials."

The enzymes responsible for double-bond placement, called desaturases, remove hydrogen atoms and insert double bonds between adjacent carbon atoms at specific locations on the hydrocarbon chains. How one enzyme knows to insert the double bond at one location while a different but closely related enzyme inserts a double bond at a different site has been a mystery.

Shanklin and his collaborators have identified a single amino acid on the desaturase enzyme that remotely controls the site of double bond placement. By changing that amino acid, the scientists could control the placement of the double bonds, and thus control the properties of the resulting fatty acid.

"It's quite remarkable to see that changing just one amino acid could have such a striking effect," Shanklin said.

The amino acid substitution caused a change in electrical charge, which resulted in an attractive force that alters the enzyme-substrate interaction and hence the position of the introduced double bond. Understanding this mechanism led Ed Whittle, a research associate in Shanklin's lab, to add an extra attractive charge, completely

changing the function of the enzyme.

"It's very rewarding to have finally solved this mystery, which would not have been possible without a team effort drawing on our diverse expertise in biochemistry, genetics, computational modeling, and x-ray crystallography," Shanklin said.

"I am optimistic that we can use what we've learned to produce novel fatty acids to replace raw materials now derived from petroleum for making industrial products like plastics."

This work was funded by the DOE Office of Science. Additional collaborators include: Jodie Guy, Martin Moche, and Ylva Lindqvist of the Karolinska Institute, and Johan Lengqvist, now at AstraZeneca R&D in Sweden. The scientists analyzed crystal structures at several synchrotrons including: the National Synchrotron Light Source at BNL, the European Synchrotron Radiation Facility in France, the Deutsches Elektronen-Synchrotron (DESY), and the MAX-lab National Laboratory for Synchrotron Radiation in Sweden.

For the full story, see www.bnl.gov/bnlweb/pubaf/pr/PR_display.asp?prID=1326.

— Karen McNulty Walsh

Using Tracers to Test Air Quality and Flow BNL and Meadowbrook Partners, Inc. Become a Mentor-Protégé Team

Brookhaven Science Associates (BSA), the company that manages BNL for DOE, has signed a four-year mentor-protégé agreement with Meadowbrook Partners, Inc. to develop business opportunities for a tracer technology that measures air quality and flow. The agreement is designed to enhance Meadowbrook's business and/or technical capabilities, while giving the company the opportunity to become a successful subcontractor to the Lab and eventually work with other government agencies and private industry.

Meadowbrook, a woman-owned small business based in Wading River, New York, will be the sole subcontractor for the Lab for the duration

of the agreement to promote perfluorocarbon tracers (PFTs) that were pioneered at BNL and are used widely in industry today. The Lab's researchers and small business experts will offer guidance to Meadowbrook on technical issues and business capabilities, including business and proposal development, networking with potential customers, packaging and tracking inventory, report writing, and various other business tasks.

PFTs are colorless, odorless, nontoxic gases that can test air flow and detect if a material is present before it becomes dangerous to humans or the atmosphere. PFT technology allows for the simultaneous release, sampling, and testing of up to...

See *Mentor Protégé* on p. 2



On hand for the signing of the Brookhaven Lab-Meadowbrook Partners, Inc. mentor-protégé agreement were: (seated, second from left) Meadowbrook Partners, Inc. CEO Janet Godfrey; (standing, fourth and fifth from left, respectively) DOE Brookhaven Site Office's Evelyn Landini and Aundrea Clifton; and BNL staff: (seated, from left) Lab Director Sam Aronson; Michelle Cooper, Procurement & Property Management Division (PPM); Walter Copan, Office of Technology Commercialization and Partnerships; (standing, from left) Don Rawlings, PPM; Paul Kalb, Environmental Sciences Department; Jill Clough-Johnston, PPM; Michael McGrath, PPM; and Michael Dubois, PPM.

Mentor Protégé from p. 1

...eight distinct perfluorocarbon tracers. In one application, BNL has been using PFTs for testing control rooms in nuclear power reactors to be sure they meet Nuclear Regulatory Commission requirements for safety. In case of an accident, a reactor control room must be almost completely airtight to ensure that radiation does not leak into it and contaminate workers and equipment. Control rooms in reactors must be tested at least every six years to validate that they are sealed.

Wider Opportunities

“So far, we’ve tested control rooms in six nuclear reactors,” said Paul Kalb, who heads BNL’s Environmental Research & Technology Division, “but there is a wider market for this type of testing using PFT tracers, and not just for nuclear power plants. We can conduct air exchange studies in large buildings to test energy efficiency, or find out what buildings might be best to shelter in place in case of terrorist attack. A simple use might be a test to detect the origin of an unwanted odor in a building.”

Meadowbrook President Janet Godfrey said, “I am grateful for this opportunity to have access to the remarkable talent at Brookhaven Lab. Meadowbrook will be able to promote the Lab’s technology, interface with clients, and handle the business aspects of using the technology, so that Lab scientists and engineers can free up their time to concentrate on technical analysis and research.”

The mentor-protégé contract will allow Meadowbrook to purchase equipment for PFT testing from BNL, and the Lab will train Meadowbrook personnel to conduct the tests, while sample analysis will be done at BNL.



Brookhaven Lab’s Thomas Watson demonstrates perfluorocarbon tracer technology to (second and third from left) Meadowbrook Partners’ Jim and Janet Godfrey, along with (from left) the Laboratory’s Steven Wood, Paul Kalb, and Michelle Cooper.

With over 400 nuclear reactors in the world — 104 of them in the U.S. — and numerous additional uses for the technology, the market for PFT testing is very promising.

Some History

DOE initiated a pilot mentor-protégé program in 1995, and it became an established DOE-sponsored program in 2000. DOE requires that BSA, on behalf of BNL, has at least one mentor-protégé program in place for as long as the contract to manage the Lab is in place.

Said Evelyn Landini of the DOE Brookhaven Site Office, “DOE believes that small businesses are the backbone of innovation, and the protégé will introduce Brookhaven Lab to new ideas and services that will be helpful to the Lab. In turn, the Lab has the expertise to help a small business mature and be able to sell their products to government contractors, as well as other businesses.”

BNL’s Three Protégés

Meadowbrook is the third

protégé that BNL has agreed to mentor. Previously, 3 Gals Industrial LLC, a safety supply company, entered into a two-year contract with the Lab, and currently, a three-year contract is ongoing until November 2012 with an engineering consultant company, Klasm International, Inc.

Mentor firms are exclusively responsible for selecting protégés. To become a protégé of BNL or another DOE contractor, a protégé firm must be a small business that is able to receive government contracts and has been in business for at least two years.

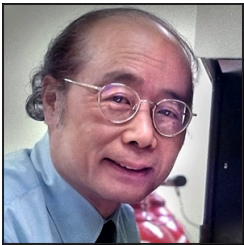
In addition, the small business must be certified as economically or socially disadvantaged and known as an “8a” business by the U.S. Small Business Administration, or women-owned, or service disabled veteran-owned, or located in a historically underutilized business zone. Historically black colleges or universities, or other minority institutions of higher learning are also eligible to apply.

— Diane Greenberg

Dr. Mow Shiah Lin Scholarship 7th Annual Award Ceremony And Reception, 10/6

The BERA Asian Pacific American Association (APAA) invites all to attend the Award Ceremony for the 7th annual Dr. Mow Shiah Lin Scholarship, on Thursday, October 6. The award of \$1,000 will be presented to Zhixun Dou, a graduate student in the Stony Brook University (SBU) Department of Molecular Genetics & Microbiology. Dou is studying for a Ph.D. in molecular & cellular biology with a focus on the molecular regulation of autophagy, which is a cell metabolic process whose balance is essential in preventing several human diseases. He will give a brief overview of his current research after being introduced by his advisor, Wei-Xing Zong, a professor at SBU.

The ceremony will be held at 4 p.m., on the second floor of the Center for Functional Nano-



materials (Bldg. 735) in the Seminar Room. Refreshments will follow the presentation.

The APAA established the Dr. Mow Shiah Lin Scholarship to commemorate the life and career of Dr. Lin, who was a distinguished scientist at the Energy Sciences and Technology Department. In honor of Dr. Lin’s research, remarkable achievements, and inventions, this scholarship will be granted annually to an Asian immigrant with a Student Visa matriculating toward a doctoral degree at an accredited institution of higher education in Environmental & Energy Technology, Biology, or Chemistry, in remembrance of the manner in which Dr. Lin began his career.

For more information, contact Susan Eng Wong, Ext. 7988.

Talk on ‘Tennis for Two’ Tomorrow, 10/1

BNL scientist Peter Takacs will give a talk, “Recreating Tennis for Two,” tomorrow, Saturday, October 1, 2:30-4 p.m. at the Museum of the Moving Image. The museum is located at 36-01 35 Avenue, Astoria, NY. The event is open to the public.

Using components equivalent to the instrumentation of 1958 — the year the game was first created by BNL physicist Willy Higginbotham — the BNL team, including Takacs, Gene Von Achen, and student intern Skyler Hagen, rebuilt the game, which will be on display during the event.

Robert Crease, BNL Historian and Philosophy Department Chair at Stony Brook University, will also give a brief talk, “Brookhaven Lab during the 1950s.”

For more history on “Tennis for Two” go to: www.bnl.gov/bnl-web/history/higinbotham.asp. For more information on the event email: bmiller@movingimage.us.

U.S. State Department Visa Lottery For Natives of Countries Of Historically Low Rates of Immigration

Brookhaven’s Office of International Services in the Human Resources & Occupational Medicine Division is charged with informing foreign nationals and interested members of the BNL community on the upcoming U.S. Department of State’s Diversity Visa Lottery program. Through a computer-generated, random drawing method, this annual program makes permanent resident visas (green cards) available to persons who fit certain eligibility requirements.

On an annual basis, this program allocates up to 50,000 “diversity lottery” visas, drawn from random selection, to persons from countries with historically low rates of immigration

to the United States. Natives of countries that have already sent a total of more than 50,000 immigrants to the United States in the previous five years are not eligible to apply.

The registration period for the Diversity Lottery Program of 2013 begins October 4, 2011, and ends November 5, 2011. Those who meet eligibility requirements are strongly encouraged to apply as soon as possible. More information on this program and instructions on eligibility requirements and application procedures can be found at Diversity Immigrant Visa Program, http://travel.state.gov/visa/immigrants/types/types_1318.html.

List of countries ineligible for 2013:

The following countries have already sent a total of more than 50,000 immigrants to the United States in the previous five years, and so natives of these countries are not eligible for the lottery for 2013. These countries are: Bangladesh, Brazil, Canada, China (mainland-born), Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, India, Jamaica, Mexico, Pakistan, Peru, Philippines, South Korea, United Kingdom (except Northern Ireland) and its dependent territories, and Vietnam.

Free Flu Shots for Benefits-Eligible Employees

By Joe Falco, Manager, Occupational Medicine Clinic

The influenza (flu) vaccine will be offered at no charge to all benefits-eligible Laboratory employees (full-time and part-time eligible employees) at the Occupational Medicine Clinic (OMC) from Tuesday, October 4, through Friday, October 7. If you are unavailable during this time, flu shots will be available through December, or as long as the Lab’s supply lasts.

Please have your BNL identification badge with you when you come for your flu shot. Shots will be available at OMC, Bldg. 490, as follows:

9:30–10:45 a.m.
Last Names N to S

10:45–11:45 a.m.
Last Names H to M

1–2:30 p.m.
Last Names A to G

2:30–4 p.m.
Last Names T to Z

To expedite the vaccination process, please try to wear a short-sleeve shirt, if possible. Please do not call OMC to ask to receive your shot early.

Retirees, students, contractors, guests, and employee family members should obtain flu shots from their personal physicians.

If you have questions regarding the flu vaccine, please call Ext. 3670 and ask to speak with a nurse.

Fiscal Year 2011 Ends Today: Vacation Carryover Reminder

Denise DiMeglio, Manager, Benefits

As we approach the end of the fiscal year today, September 30, remember that beginning this year eligible employees have more time to use their accrued vacation days. As announced this past April, the Laboratory changed its vacation carryover policy to move the cutoff date for vacation carryover from September 30, 2011, to January 20, 2012.

Here’s how the policy works for eligible weekly and monthly employees:

Weekly employees are required to reduce their vacation carryover to 31 days or less by January 20. Weekly employees may carry 31 accrued vacation days from January 21 of a calendar year until January 20 of the next calendar year. The Fiscal Services Division will notify all departments of the January weekly leave report cutoff date for charging vacation usage before vacation accrual balances would be reduced. Any vacation time accrued by weekly employees after their cutoff date will not be included in the reduction.

Monthly exempt and nonexempt employees may carry 20 accrued vacation days from January 21 of a calendar year until January 20 of the next calendar year. Accordingly, vacation accruals should be no higher than the 20-day maximum by January 20. Any vacation time accrued by monthly employees during January will not be included in this reduction. The electronic timecard ending January 20 should reflect any remaining vacation time over 20 days.

Remember, these changes also apply to members of the USW and SCSPA unions. While this proposal was offered to the IBEW, they have decided to stay with their current contract language as stated in Article VI, Section 6.03, of the Collective Bargaining Agreement.

The vacation carryover policy change has many benefits. The former September 30 deadline caused a hardship for departments and divisions as their staff worked hard to complete projects by the end of the fiscal year while also trying to use up accumulated vacation time. In addition, the change helps provide relief to employees who may need time for childcare needs during school holiday closings in December and January. The policy change makes the Lab’s vacation benefit even more useful for employees.

Anyone with questions or concerns should please contact me at Ext. 2881.

CALENDAR

• The BERA Store in Berkner Hall is open weekdays from 9 a.m. to 3 p.m. For more information on BERA events, contact Andrea Dehler, Ext. 3347, or Christine Carter, Ext. 2873.

— REGULARLY —

Weekdays: Free English for Speakers Of Other Languages Classes
Beginner, Intermed., Adv. classes, various times. All welcome. Learn English, make friends. See <http://www.bnl.gov/esol/schedule.asp> for schedule. Jen Lynch, Ext. 4894.

Mondays: Yogalates
Noon–1 p.m. at the Rec Hall (Bldg. 317). Registration required, Ext. 2873.

Mondays: Pilates
5:30–6:30 p.m. at the Rec Hall (Bldg. 317). Registration required, Ext. 2873.

Mon. & Thurs.: Kardio Kickboxing
\$5 per class. 12:15–1:15 p.m. in the gym (Bldg. 461). \$5 per class. Ext. 2873.

Mon., Tues., Thurs., & Fri.: Tai Chi
Noon–1 p.m., B'haven Cntr (Bldg. 30), N. Rm. Adam Rusek, Ext. 5830, rusek@bnl.gov.

Tuesdays: Hospitality Welcome Coffee
10:30 a.m.–noon at the Rec Hall (Bldg. 317). Meet over coffee. Children welcome. Ext. 2873.

Tuesdays: Knitting Class
2–4 p.m. at the Rec Hall (Bldg. 317). Learn to knit/crochet — all skill levels. Free. Ext. 2873.

Tuesdays & Wednesdays: Zumba
Tuesdays: Noon–1 p.m., in gym (Bldg. 461). Wednesdays: 5:15–6:15 p.m., at the Rec Hall (Bldg. 317). Registration required, Ext. 2873.

Tuesdays: Toastmasters
Two monthly meetings: 1st & 3rd Tuesdays, 5:30 p.m., Bldg. 463, Room 160. Guests and visitors welcome. <http://www.bnl.gov/bera/activities/toastmasters/>.

Tuesdays & Thursdays: Aerobic Fitness
5:15–6:30 p.m. in the Rec. Hall (Bldg. 317). \$5 per class, or 10 classes for \$40. Kathy Schoenig, Ext. 2818, schoenig@bnl.gov.

Tues., Wed., & Thurs.: Rec Hall Activities
5:30–9:30 p.m. in Bldg. 317. General activities, TV, ping pong, chess, games, socializing. Christine Carter, Ext. 5090.

Tuesday & Thursday: Aqua Aerobics
5:30–6:30 p.m., Pool (Bldg. 478). Registration required, Ext. 2873.

Wednesdays: Ballroom Dance
5:30, 6:30, 7:30 p.m., Brookhaven Center (Bldg. 30). Vinita Ghosh, Ext. 6226.

Wednesdays: Play Group
10 a.m.–noon at Rec Hall (Bldg. 317). Parents meet while infants/toddlers play. For events, see <http://www.meetup.com/BNL-Playgroup>, or call Ext. 2873.

Wednesdays: Yoga
Noon–1 p.m., B'haven Center (Bldg. 30). Free. Ila Campbell, Ext. 2206, ila@bnl.gov.

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

Thursdays: BNL Cycletrons Club
5 p.m., Brookhaven Center. First Thurs. of month. Andy Mingino, Ext. 5786.

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

Thursdays: Postdoc Social Night
6:30 p.m. ASAP Lounge (Bldg. 462). www.bnl.gov/asap.

Thursday: Judo Class
7:30 p.m. Gym (Bldg. 461). Tom Baldwin, Ext. 4556.

Fridays: Family Swim Night
5–8 p.m. Pool (Bldg. 478). \$5/family. Ext. 2873.

TIAA-CREF One-on-One Retirement Counseling

A TIAA-CREF consultant will visit BNL on October 19, November 2, November 17, November 28, December 8, December 14 and December 21 to answer employees' questions about their financial matters.

The consultant will help you: understand the importance of protecting your assets against inflation, find the right allocation mix, learn about TIAA-CREF retirement income flexibility, and compare lifetime income vs. cash withdrawal options. For an appointment, call 1-800-732-8353 or go online at www.tiaa-cref.org/bnl and select "set up a meeting."



J. R. CHIN/APR

APS Historic Site Celebration Walking Tour Rescheduled for Monday, 10/3

Get a commemorative T-shirt and hear the audio tour

On Friday, September 23, the American Physical Society (APS) commemorated Brookhaven National Laboratory as a historic site in the advancement of the field of physics. The walking tour that was postponed because of the rain that day has been rescheduled for Monday, October 3, at 11:30 a.m. The tour will depart from the parking lot outside Berkner Hall. Come celebrate this recognition of our achievements and illustrious history. Please plan to arrive a few minutes early. Walkers will be given commemorative T-shirts (as supplies last) at the end of the walk.



There's an Audio Tour, Too

Hear stories of Brookhaven's brilliant history at each stop of the

walking tour by listening to the accompanying audio tour that is available at <http://www.bnl.gov/historicsite/walkingtour.php>. There are two ways to listen.

If you have a web-enabled smart phone, you can listen along the way by streaming the audio to your phone.

If you have an iPod or another mp3-playing device, download the entire audio tour and load the audio tracks onto your device in advance before going to the walk.

Transcripts of the audio tour for each stop are listed for those without smart phones or mp3 players.



The group of BNLeers who participated in the 5K "Stephen Siller Run" to raise funds for the pediatric New York City Firefighter Burn Center and burn centers throughout the nation.

BNLeers Join the in 'Tunnel to Towers' Fundraiser

On Sunday, September 25, a group of BNLeers participated in the "Tunnel to Towers Run" in New York City.

The 5K run or walk, which was established in memory of New York City firefighter (FDNY) Stephen Siller, spans from Brooklyn's Battery Tunnel to the location of the World Trade Center towers.

On September 11, 2001, Siller ran this route — through the tunnel to the WTC tower — in full fire-department gear, to assist his fellow emergency responders. Sadly, Siller was among the 343 FDNY responders who would never return home.

BNL Fire Captain Marcel Rosenfeld rallied BNLeers to participate in the fundraising



Joining the commemorative run/walk is BNL Firefighter James Maire, in full firefighting gear, making his way through the tunnel to the towers.

event. He also had custom T-shirts designed and arranged transportation to and from the race on a bus generously provided by the Miller Place Fire Department.

"I encourage others to join us next year," said Rosenfeld. "It's a worthwhile benefit and despite the sadness that lies behind the purpose, it is a day of camaraderie and fun. It is a celebration of Stephen Siller's life and the lives of other heroes lost on that tragic day in 2001."

Monies raised from the event support the pediatric unit of the NYC Firefighter Burn Center and burn centers throughout the nation.

Interested in participating in next year's race? Contact Rosenfeld, Ext. 2350, mrosenfe@bnl.gov. For more information on the "Tunnel to Towers" race go to: https://tunneltotowersfoundation.org/nyc_run.aspx. — Jane Koropsak

Wanted: BNL Art & Crafts for Fall Show, 11/21-23

BNL artists, photographers, sculptors, and crafters — your most beautiful, eye-catching work is needed for the BNL Art Society's upcoming Art and Crafts Show sponsored by the BNL Art Society, the BNL Photography Club, and the BNL Crafts Club, to be held at Berkner Hall from Monday to Wednesday, November 21-23, 11:45 a.m.-1:30 p.m. BNL employees, retirees, facility users, guests of BNL, and family members 15 years and older, may all contribute up to three pieces, to be shown as space permits. Exhibits for the show must be delivered to Room C, Berkner Hall, between 2 to 4 p.m. on Friday, November 18, and collected on Wednesday, November 23, between 1:30 to 3 p.m. You may have a friend deliver and/or collect, but please be sure that the friend is reliable.

To be included in the catalog, send your name, phone number, your exhibit's title (if there is a title), the type of work (photograph, painting, wood/metal sculpture, needlework, etc.), and a short description (medium, material, size, etc.) to Liz Seubert or Joe Gettler, Bldg. 400C, or email the information to lseubert@bnl.gov or jgettler@bnl.gov by Monday, November 14.

CALENDAR

— WEEK OF 10/3 —

October: Healthfest Month

To register for events and for more information see <http://intranet.bnl.gov/healthfest/>.

Wednesday, 10/5

400-Yd Swim, Open House Guided Tour of Pool, Gym, Weight Room
11 a.m.-1:30 p.m.

Table Tennis Singles B
5 p.m. Rec Hall, Bldg. 317. Register with Michael McGuigan, mcguigan@bnl.gov

Thursday, 10/6

Split Biathlon (Swim)
11 a.m.-1:30 p.m. Pool. 800 yd., timed. Register, please.

Talk: Steps for Healthy Marriage
Noon-1 p.m. Berkner Hall, Room B. Nancy Losinno, EAP Manager, will talk on "Marital Checkup: 'Positive Steps for a Healthy Marriage.'" Register at <http://intranet.bnl.gov/healthfest/>.

— WEEK OF 10/10 —

Monday, 10/10

All-Employee Meeting
1:30-3 p.m. Lab Director Sam Aronson invites all employees to discuss the 10-Year Strategic Plan, the Blueprint, and safety. All are welcome.

Wednesday, 10/12

2-Mile Site Walk
Noon-1 p.m. Register, you will be sent a map.

Table Tennis Doubles
5 p.m. Rec Hall, Bldg. 317. Pre-register with Michael McGuigan, mcguigan@bnl.gov

Thursday, 10/13

Ballroom Dance Demo, Mini-Class
11:30 a.m. - 1:30 p.m. Dance Club members present & teach dances at all levels of skill. All welcome.

Friday, 10/14

Healthfest & Biathlon 5-km. Runs
Noon. Start at Biology, Bldg. 463.

— WEEK OF 10/17 —

Wednesday, 10/19

BSA Distinguished Lecture
4 p.m. Berkner Hall. Physicist Nima Arkani-Hamed to talk on "Space-Time, Quantum Mechanics and the Large Hadron Collider." All welcome.

Arrivals & Departures

— Arrivals —

Christopher Amundsen ... Phot Scis
Hanna Terletska CMP&MS

— Departures —

Thomas McElmurry Physics
Xiaojian Wang Chemistry

BERA Updates

Buy tickets at the BERA Store, weekdays, 9 a.m.-3 p.m. Coaches leave from the Brookhaven Center.

Tues., Oct. 4. Professional Soccer at Red Bull Arena in Harrison, NJ. NY Red Bulls vs. the Los Angeles Galaxy. Tickets are \$33, for game & coach fare. Dep. Lab, 4:30 p.m.; dep. arena, 10:30 p.m.

Sun., Oct. 30. New York's Greenwich Village Guided Ghost Walking Tour. Wear comfy shoes! Suggested age: at least 14 yrs old. \$25 per person, dep. Lab 8 a.m., dep. 4 p.m. from Washington Square Park.

Save the following dates for future trips:

Dec. 10: NYC Do-As-You-Please bus trip

Dec. 11: Radio City

Dec. 16: BERA Holiday Party
See the BERA homepage at www.bnl.gov/bera/ for more information, or contact Christine Carter, Ext. 5090, or Joanne Rula-Delles, Ext. 8481.



Hawk-Eyed!

Richard Iaccarino, Photon Sciences Directorate, caught the intent glare of this red-tailed hawk behind the National Synchrotron Light Source parking lot.

Classified Advertisements

Current job openings and a statement of job placement policy at BNL are available on the homepage at www.bnl.gov/HR/careers/. To apply for a position, go to www.bnl.gov and select "Search Job List." For more information, call Ext. 2882.

Motor Vehicles & Supplies

02 TOYOTA AVALON – 92K mi. Silver with gray leather interior, clean comfortable safe car, garaged, new tires, single owner, no accidents, minor dents, maint records. \$8,200. Erich, 744-6423.

02 FORD MUSTANG GT – 15.3K mi. convertible, red/tan leather interior, 4.6l 2V SOHC V8 eng, 5 spd manual tranny, ground effects, 17" alloy rims, immaculate cond, gar, on rd nice weather only. \$12,500. Ext. 4929.

00 BMW 323i – 174K mi. 5 spd, 6cyl, blk ext, tan int, leather pwr seats, sun roof, ABS, traction contrl, trip comp, front & head air bags, a/c, p/l, p/s, p/w, c/c, am/fm/xm/cd. \$4,900. Rob, 917-865-9668 or pisarski@bnl.gov.

99 JEEP CHEROKEE – 123K mi. 6 cyl. 4L, 4wd, no accident, blue, a/t, new batt. shock, absorbers, brakes & belt, <http://tinyurl.com/4ywc98p>. \$2,500 neg. Zhe, 578-0843 or wangzhe@bnl.gov.

99 FORD ESCORT WAGON – 142K mi. Runs well, new brakes, orig owner, fuel efficient 28-30 mpg. \$3,000 neg. Eli, Ext. 7179.

99 MERCURY SABLE – 116K mi. 4 dr, a/c, p/w, pwr sunroof, leather int. \$1,700. 787-313-0541.

83 MAZDA RX7 – 53K mi. 12A Rotary classic, many new parts, excel cond. \$6,700 neg. 327-4687.

PICK-UP CAP – white, w/sliding windows, fits Chevy S10 or GMC Sonoma long beds, like new. make offer. Tony, 516-316-1183.

TIRES – 4 Dunlop Sport M3 Tires, 215/45/17, V-spd rated, quiet, great tires, winter performance, 10-15% wear, ask/\$275. Lee, Ext. 5866.

Furnishings & Appliances

APPLIANCES – Clothes dryer, white, GE, elec/\$50; dishwasher, black, Whirlpool/\$50. Ron, Ext. 7588.

FIREPLACE – double-sided, glass drs, b/o. Karl, Ext. 3116.

FUTON MATTRESS – purchased 2 mos ago, barely used, pd/160, ask/\$90. Ext. 3552.

KITCHEN TABLE & CHAIRS – light Maple table w/leaf and 4 spindle back chairs, 60"x36", excel cond, \$300. 678-3299 or dgbdou@gmail.com.

PIANO – upright, needs work, b/o. Karl, Ext. 3116.

PORTABLE WASHING MACHINE – GE, like new, has wheels and can be easily rolled into a closet, connects directly to sink faucet, purchased for \$699; selling for \$150. 708-4778.

REFRIGERATOR – GE white, 20.6 cubic ft, top freezer, ice maker, gd cond, u-pic-up \$100. 208-0009.

SLEIGH BED – q/size, iron, antique bronze finish w/frame/hdware, \$225/obo. 395-9610.

TWIN BED – Mattress/Boxspring Little Tikes Car Bed (Blue). Call for pics. \$150.00. Cheryl Harris-Chin, drjharischin@gmail.com.

WAVEBOX PORTABLE MICROWAVE – Lightweight & portable, has removable cooler, plugs into AC, DC to car battery, DC to car power outlet, like new, \$85. Linda, Ext. 2733, 395-6784 or dipierr@bnl.gov.

Audio, Video & Computers

CAMERA – Panasonic Lumix DMC-FH20 14.1 MP, 8x Optical Zoom and 2.7" LCD black, slim, 720 HD movie, 2GB memory card, case, less than a yr old, excel cond, \$115/neg. JS, 344-4290.

NOKIA 5300 T-MOBILE CELLPHONE – works well has all/\$20; Advent LC-15Y12 15" TV/LCD monitor \$20; Panasonic DVD-RV31 player, like new \$10. Ext. 5049, 882-2706.

TV – 42" Vizio LCD 1080P, 6 mo old, 2-HDMI inputs, like new, have all manuals, ask/\$400. Gregg, Ext. 4548 or gtomasello@bnl.gov.

TV'S – 26"/\$40, 13"/\$20, CD player w/AM/FM radio/\$15. Lynda, Ext. 7235 or fitz@bnl.gov.

Sports, Hobbies & Pets

BICYCLE – Cannondale CAAD 9 road bike w/ Shimano Ultegra/105 components. 63 cm frame. Gloss black w/red lettering. Best for someone over 6' tall. \$900. E-mail for photos, specs. Phil, Ext. 5669 or harringt@bnl.gov.

GYM EQUIPMENT – Nordic Track (1), Nordic Gold (1), Tunturi bike (1). Like new. Best Offer. 744-8386.

HOCKEY TABLE – used, 8' unassembled Sportcraft Turbo, great for bsmt entertaining and fun, must pic-up & have instructions, pic avail, ask/\$225/neg. Christine, Ext. 7950 or cm8841@yahoo.com.

TICKETS – 2/dover Nascar Race, Sun, Oct 2, front straight sec 110 row 42 aisle seats, ask/\$100. 325-9578.

TOTAL GYM ULTRA – more than 60 cardio/strength training exercises possible w/ incld attachmnts, excel cond, ask/\$125. Joseph, Ext. 2567 or jsulli2011@gmail.com.

WETSUIT – excel winter lg surfing wet-suit, reg hooded, like new, used just a few times, great for late fall and early spring, pics avail, \$150. sbronson@bnl.gov.

Tools, House & Garden

GENERATOR – Generac GP5500 under 120 working hrs, 5500 wats, 45.8/amps, like new, ask/ \$750, incl two/5gal gas cans. Robert, Ext. 4666.

SNOW BLOWER – Honda 20", single stage, elect start, \$300. Ext. 2752, 751-6571 or woody@bnl.gov.

Miscellaneous

ACOUSTIC GUITAR – carbon fiber, 3/4 size, v/gd cond, incl capo and case, pic avail, \$700. Ext. 2913 or guida@bnl.gov.

CHRISTMAS TREE – artificial, 6' gd cond, \$15, u-pic-up. Linda, Ext. 2383.

SCUBA GEAR – Dacor Extreme regulator and Oceanic dive computer w/carry case, v/gently used, b/o. Susan, slattuca@bnl.gov.

Community Involvement

SALVATION ARMY ANGEL TREE PROG – Be in touch with the Salvation Army to select an angel (a child) & buy Holiday gifts for that angel (child). 727-3338 or kelly_Ross@use.salvationarmy.org.

Happenings

BERA GOLF ASSOCIATION OUTING – Our end of the year outing is at Rock Hill golf course on Monday Oct 10. The cost of \$60 incls cart, shag balls and prizes. This is a two-person scramble format event. Jeff, Ext. 5587 or jwilliams@bnl.gov.

Lost & Found

EYE GLASSES – Lost on 9/22/11 betw Brookdsh House & Physics, Bell Ave/ Brookhaven Ave/Pennsylvania St. Ext. 3908.

I-POD TOUCH – last seen by bldg 911, has a white rubber case around it, if found pls call 905-9637, thnx. Scott, Ext. 4010 or sthilberg@bnl.gov.

Watch Out for Wildlife on Site

From a comment in Monday Memo:

Several weeks ago, an employee was hit by a deer while riding his bicycle on site. He was thrown from the bike onto the pavement and seriously injured but is expected to make a full, albeit painful recovery. He was wearing his helmet, which protected him from head trauma. This was an unfortunate accident. Another similar incident on site happened last year.

Tim Green, BNL's Natural & Cultural Resource Manager, replied:

The Lab has an estimated 400 deer resident on its 5,300 acres. This equates to approximately 50 deer per square mile, which is about five times greater than the lower end of the recommended range of 80 to 250 deer for the entire site. Two years ago, the Lab was working in earnest toward deer management and was close to starting an environmental assessment before implementing a management plan. However, other higher

priority work delayed that initiative. We are now ready to resume where we left off and will begin an environmental assessment of deer management this fall.

The Lab community should always be aware of deer, no matter how large or small the population. Deer are wild animals and are not predictable. My recommendation is that if you see deer on the side of the road, you should be prepared for them to head in your direction. This is true while driving a car, riding a bicycle, walking, or jogging. Not too long ago, I was on a group bicycle ride near the Carmans River and more than 10 deer ran through the pack of bicyclists twice in a matter of seconds. Luckily, not a single rider was hit or hurt.

The key here is be cognizant of your surroundings and be prepared for wildlife. An accident with a goose, turkey, or groundhog can be equally dangerous.



Roger Stoutenburgh 00020611

A deer can be nearly invisible among trees or in the grass, then suddenly, it can dash in front of your vehicle.

P.S. from Bulletin Editor: Watch out for humans, also. Everyone on the road (both on and off site) has to be ready to accommodate unexpected happenings. One recent averted accident at Brookhaven Avenue and Upton Road crossroads involved a jogger not concentrating on traffic signals who ran accross the road abruptly right in front of a car that had a green light to turn left — the motorist was going slowly and braked in time.

Free

TV AND REMOTE – 19" older style TV, works okay. Stephen, plate@bnl.gov.

TWO CATS – one female & one male, cute and well behaved, healthy, fixed, almost 3 yrs old, in search for a new home. <http://tinyurl.com/4ywc98p>. Zhe, 578-0843.

Yard & Garage Sales

HOLTSVILLE – Saturday, Oct 1st, 9am-3pm, 128 Abner Drive, multi-family, household items, tools, xmas decorations and lots more!. Ext. 5960.

Wanted

BABY STROLLER – for infants, toddlers, up to 35 lbs, must be gd cond. Tony, Ext. 8450.

BEDROOM SET – queen, wood, excel cond, pics appreciated. slattuca@bnl.gov.

SMALL GREENHOUSE – will disassemble and remove your unwanted backyard greenhouse. Gary, Ext. 7779.

TRAINS – Lionel, American Flyer, Marx&Mth, also cast soldiers, top dollar pd. 924-4097.

For Rent

WEEKI WACHEE SPRINGS, FL – priv ranch on Gulf, 70m Orlando, 45m Tampa, fly Islip dir, nr beach/tennis/park, 3/bdrm, 2/bath, d/r, f/p, 2gar, igp in lanai, fruit trees, see review.oktane.net/HouseTour.4400/wk.344-5537.

MASTIC – new apt, upper unit, 1 bdrm, full bath, fully equip new eik, new carpeting/paint, priv ent, 8 min to BNL, walk to shop, util incl, no smkg/pets, \$750 mo, 1/ mo sec. \$750/mo neg. 339-3444.

MEDFORD – 2 bdrm 2 bth w/ w/d, d/w, terrace, v/clean, playgrd in gated complex. \$1,625/mo neg. Jennifer, Ext. 4894, 258-6143 or jpieniazek@bnl.gov.

MELVILLE– 6 bdrm, 3 bath hse, fully furn, l/r, d/r, f/p, eik, dbl oven, utils not incl. \$3,200/mo. James, 516-578-1150.

MIDDLE ISLAND – 1 bdrm, l/r, full kit & bath, bsmt apt, incl all, 10 min to BNL, priv ent/drwy, clean, quiet, no smkg/pet, int/ phone incl, BNL employee only, 1 mo sec., \$850/mo. Istvan, Ext. 7020, 672-2451.

MILLER PLACE – Share fully furn. colonial house in prof. residential area 10 mi. to BNL. Wire and wireless internet, cable TV, ac/heat. own bdrm. All incl. Responsible non-smoker. \$725/mo. 744-8386.

MILLER PLACE – Share fully furn. colonial house in prof. residential area 10 mi. to BNL. Wire and wireless internet, cable TV, ac/heat, own bdrm. All incl. Responsible non-smoker. \$700/mo. 275-0866.

MILLER PLACE – Excel cond, 2 bdrm lg furn apt w/priv ent, 2 full bths, l/v, new eik and appls, hdwd flrs thru, incl all utils + cable+ 1 mo sec, no smkg/pets, 7 mi to BNL. \$1,400/mo neg. 598-9928.

ROCKY POINT – 1 bdrm lower-end unit apt, priv backyd, lg bath, eik w/side window, lg l/v, new cac/heat, no smkg/pets, util incl water & gas, 12 mins to BNL, cross st from schools. \$1,000/mo neg. 593-4403.

ROCKY POINT – 2 bdrm 1 bath hse, OHW heat, new carpets/paint/appli, pets ok, util not incl. \$1,450/mo. John, Ext. 8206, 466-8436.

SHOREHAM – 1 bdrm, furn, new garden apt, grnd flr, indep, ent/drwy, full bath, kit, l/r, cac, no smkg/pets, few mi to BNL, 1 mo sec, all util incl. \$1,200/mo. 566-8261.

SHOREHAM – nr beach, 1 bdrm apt w/office area, ktch/lr combo, pvt ent w/french drs, drway prk, incls CAC, heat/elect/cable/int, mins to lab. \$900/mo. Ext. 2025, 764-8249.

WADING RIVER – new, furn or not, studio apt w/sep ent, sep eik, tiled bath, priv ent, util/int/HD incl, no smkg, walk beach, 15 mins to Lab. \$900/mo neg. 804-8117.

WADING RIVER – 3 bdrm, 2 1/2 ba, hse w/ jacuzzi, kit, laundry, l/r, d/r, bsemt, deck, 1 acre, WRSD. Sec. dep., income verif., cred. chk. req. Pets ok w/pet sec. dep. Utils. not incl. \$2,900/mo. 943-9107.

WADING RIVER – new spacious 1 bdrm apt, l/r, d/r, full bath, full kit, office area, part furn, priv ent, waterfront, v/quiet, incl util, no smkg/pets, plus 1 mo sec. \$1,100/mo. 929-4886.

For Sale

WEEKI WACHEE SPRINGS, FL – priv ranch on Gulf, 70m Orlando, 45m Tampa, fly Islip dir, nr beach/tennis/park, 3/bdrm,

2/bath, d/r, f/p, 2gar, igp in lanai, fruit trees, see review.oktane.net/HouseTour.4400/wk.344-5537.

CALVERTON – Calverton Meadows, 3bdrm, EIK, DR, LgLR, 2bath, Large deck, backs state land. 55+community. \$99,900 neg. Eileen, 284-3956 or eptsmls@aol.com.

MIDDLE ISLAND – 4 bdrm 2.5 bath, Victorian great cond, '03 construction, hardwd flr, stainless steel appl, cherry cabinets, CAC, f/p, finish hobby rm in bsmt. \$319,000. Ext. 3621.

RIDGE – Leisure Knolls, active adult community, 55 & over, 2 brm/2 bath, garage, a/c, private backyard, community pool, tennis, many activities/clubs. \$165,000 neg. Celeste, Ext. 2551 or ty-mann@bnl.gov.

RONKONKOMA, – 4/bdrm Cape, lg, fully fen, priv yd, new kitch & baths, hardwd flrs, all Andersen windows, full fin bsmt w/OSE and full bath, Connetquot Schools, close to LIE, LIRR. \$339,000 neg. 901-4302.

SHOREHAM – 3 bdrm, 1 bath ranch on quiet st, updated kitch and bath, ss applis, new wood flrs/roof, gar, SWRSD, low taxes, 10 min to Lab. \$265,000 neg. 258-4607.

SHOREHAM – 3 bdrm, 1.5 bath colonial on cul de sac, updated kitch w/stainless appli, updated bath, new w/d, wood shed, gar, SWRSD, low taxes, 10 min to Lab. \$359,000. Andrea, Ext. 3347, 744-8793.

WADING RIVER – energy saver cape model home, built for energy efficiency, all new granite kit/bath/elec/oil burner, taxes \$6359, .79/acre. \$371,750. Randi, 561-7383.

WEST SAYVILLE – 3 bdrm Col. w/upstairs sitting rm, 2 full baths, d/r, 2 level sunrm w/gas heat, sunken l/r w/fp, full bsmt, det. 1.5 gar w/full loft, hardwd flrs, brick patio w/pergola. \$399,000. 567-5966.

In Appreciation

A heartfelt thank you to my friends & co-workers for the fruit basket, flowers & prayers you provided to help us through the difficult loss of my brother. It will always be appreciated. — Scott Bell & Family.