the Bulletin

BROOKHAVEN NATIONAL LABORATORY

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Roger Stoutenburgh D3680411

Scott Giangrande (left) and Michael Jensen of the Environmental Sciences Department at Brookhaven Lab

BNL Storm Experts Study Clouds in Oklahoma

DOE and NASA scientists partner in new effort to model how storm clouds contribute to climate

An anvil cloud looms over the Southern Great Plains site.

This spring, scientists from BNL headed to "Oklahoma! — where the clouds come sweepin' down the plain, and...the wind comes right behind the rain" — to take atmospheric measurements aimed at improving global climate models. Working with DOE's Atmospheric Radiation Measurement (ARM) Climate Research Facility in collaboration with NASA's Global Precipitation Measurement Mission, the scientists will study the many factors that contribute to the formation and life cycle of convective clouds — those towering masses formed by rising heat that can produce thunderstorms and other severe weather.

"The data collected during this study will lead to a better representation of convective storm systems in global climate models, and also improve the fidelity of satellite observations of precipitation," said meteorologist Michael Jensen of BNL's Environmental Sciences Department, who leads DOE/ARM's participation in the study. Others from BNL on the field study with Jensen were Scott Giangrande, Mary Jane Bartholomew, and Pavlos Kollias, a BNL subcontractor who is a professor at McGill University. BNL's role in this research is funded by the DOE Office of Science. Argonne National Laboratory operates the ARM Southern Great Plains site for DOE.

Known as the Midlatitude Continental Convective Cloud Experiment, the study began on April 22 and will run for about six weeks. It will take advantage of the full range of atmospheric measuring equipment at the ARM Southern Great Plains site in central Oklahoma, including a new, state-of-the-art dual-band scanning radar — installed with funding from the American Recovery and Reinvestment Act — that will enable the most-comprehensive-ever three-dimensional observations of clouds over time. The ground-based observations will be supplemented by observations from NASA aircraft flying within and above the cloud systems.

"Our goal is to provide the most complete characterization of convective cloud systems and their environment that has ever been obtained, providing information that has never before been available for representing these processes in global climate models," Jensen said.

Convective processes — for example, the movement of warm air from near Earth's surface to higher, cooler altitudes — play a critical role in Earth's energy balance by redistributing heat and moisture in the atmosphere and triggering precipitation. In modeling Earth's climate at present or in the future, it's important to accurately represent these convective processes.

Current weather forecasting and global climate models, however, cannot account for the short time scales and small spatial areas over which atmospheric convective processes take place. Scientists must therefore turn to simplified mathematical representations of these processes.

Data from field studies like the one set to start in Oklahoma are used to formulate and validate these mathematical representations — and the…

See ***Studying Clouds*** *on p. 2*

Brookhaven Lab Awards $6.5 Million Contract To Local Company For NSLS-II Components

BNL has awarded Advanced Energy Systems, Inc., a small high-tech company located in Medford, New York, a $6.5 million contract to build critical elements of the National Synchrotron Light Source II (NSLS-II), a $912-million facility now under construction at the Lab.

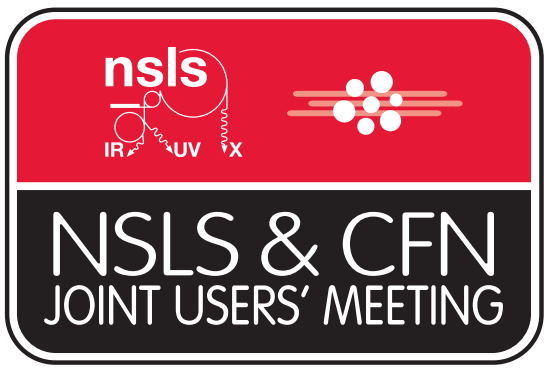
Ready for research in 2015, NSLS-II will be one of the world's most advanced light sources, providing sophisticated new tools for science that will enhance national and energy security and help drive abundant, safe and clean energy technologies.

Seen from above, NSLS-II is a giant ring nearly half a mile in circumference. The ring will be filled with magnets that form the core of an electron accelerator. NSLS-II will work by guiding an intense beam of electrons through the center of each magnet, where powerful magnetic fields will contain and steer the particles in a nearly circular path. Light emitted by electrons traveling around the ring will be shunted to beamlines, a collection of scientific instruments used to do experiments.

"We are excited to be working with AES," said Jim Rose, lead scientist in charge of the new components to be built by AES. "The company has a good track record in making high-tech accelerator systems, and they have provided excellent accelerator components for BNL on earlier occasions."

Over a two-year period, Advanced Energy Systems (AES) will build two devices called radio frequency (RF) cavities, in which electric currents oscillate at the frequency of radio waves. These RF cavities are special because they are made of niobium, a type of metal that, when cooled to 4.5 kelvins (minus 451 degrees Fahrenheit), conducts electricity with nearly zero resistance. This phenomenon is known as superconductivity.

See ***NSLS-II Components*** *on p. 2*



See p.2 for details

Licensing BNL Technologies Made Easier for Start-ups

On May 2, BNL joined a DOE program designed to reduce the upfront costs and paperwork requirements for start-up companies to obtain an option to license available patented technologies from the Lab's patent portfolio. Part of the Obama Administration's Startup America Initiative, the DOE program, called the "Next Top Energy Innovator" challenge, aims to double the number of start-up companies coming out of national laboratories.

"We're challenging America's entrepreneurs and innovators to create new businesses based on discoveries made by our world-leading national laboratories," said Energy Secretary Chu in a news release on the program. "Because we've cut the upfront fees and reduced the paperwork, we'll make it easier for start-up companies to succeed and create the new jobs our economy needs. Our goal is simple: unleash America's innovation machine and win the global race for the clean energy jobs of the future."

Under this pilot program, which will remain in effect until December 15, 2011, BNL will reduce the upfront cost of options to license available patents to U.S. start-up companies to $1,000 — a fraction of the usual cost. The agreement will give the company a six-month option to obtain an exclusive license to the technology for a specified field of use. To obtain such an option, the company must submit a business plan that clearly shows how it intends to develop and market the technology. The plan may include research collaborations with BNL scientists to advance the technology. At the conclusion of the option period, which may be extended for an additional six months, the company can negotiate a commercial license agreement, including appropriate terms such as equity and royalties.

> "We'll make it **easier** for **start-up companies** to **succeed** and **create** the **new jobs** our economy **needs**."
>
> ***Secretary of Energy Steven Chu***

"We expect that this new program will expand an awareness of the rich portfolio of business opportunities available at DOE labs, including Brookhaven," said Walter Copan, Manager of BNL's Office of Technology Commercialization & Partnerships (OTCP). "We believe the program will increase the number of successful companies and create new jobs that our nation needs — particularly clean energy jobs."

See ***Energy Innovators*** *on p. 2*

BSA Distinguished Lecture, 5/23

Nobel Laureate Thomas A. Steitz at BNL To Speak on Ribosome, New Antibiotics

Nobel Laureate Thomas A. Steitz of Yale University and the Howard Hughes Medical Institute will give a BSA Distinguished Lecture, titled "From the Structure and Function of the Ribosome to New Antibiotics," on Monday, May 23, at 4 p.m. in Berkner Hall. BSA Distinguished Lectures are sponsored by Brookhaven Science Associates, the company that manages BNL, to bring topics of general interest before the Laboratory community and the public. The lecture is free, and no preregistration is required. All visitors to the Laboratory 16 and older must bring a photo ID.

The ribosome is a very large macromolecular machine that translates genes into proteins in all living cells. In 2009, Steitz and collaborators Venkatraman Ramakrishnan and Ada E. Yonath won the Nobel Prize in Chemistry "for studies of the structure and function of the ribosome" that were performed, in part, at BNL's National Synchrotron Light Source. More recently, Steitz and his team have determined the structures of the functional states of the ribosome as it progresses through the various steps of protein synthesis.

The ribosome is a major target for antibiotics, and Steitz and his team have also determined the structures of many complexes of the ribosome with different families of antibiotics attached to it. The structures of some of the antibiotic complexes have been used by Rib-X Pharmaceuticals, Inc., of New Haven, Connecticut, to develop new potential antibiotic compounds that, based on clinical trials, are effective in eradicating MRSA, a bacterial infection that is resistant to antibiotics commonly used to treat staph infections. Also, the team has found two compounds bound to the ribosome that are effective against tuberculosis, making it possible to design new anti-tuberculosis antibiotics.

After earning a Ph.D. in biochemistry and molecular biology from Harvard University in 1966, Steitz performed postdoctoral research at Harvard from 1966 to 1967, and at the MRC Laboratory of Molecular Biology, Cambridge, England, from 1967-1970. He joined the faculty at Yale University in 1970, and the Howard Hughes…

See ***Steitz's Talk*** *on p. 2*

The Central Facility houses the core instrumentation for the Southern Great Plains (SGP) site and is the center of operations for SGP experiments.

Studying Clouds *from p.1*

… subsequent predictions from the models that use them. The data also help scientists better understand the physics underlying the mathematical representations, and find ways to improve those representations.

The Oklahoma field study will look at several different components of atmospheric convective processes including: the atmospheric conditions in which a convective cloud first starts to form, how air motions within the cloud impact the subsequent growth and formation of precipitation, what types and sizes of cloud and precipitation particles occur within the different stages of the cloud life cycle, and how the cloud system impacts the background atmosphere.

The experimental approach is to document, in three dimensions, not only precipitation, but also clouds, winds, and moisture in an attempt to provide a holistic view of convective clouds and their feedback with the environment — in other words, a real-world natural cloud laboratory.

"Because this study will look at the entire life cycle of clouds — before, during, and after a storm — it provides opportunities for unparalleled characterization of convective clouds and their climate implications," said co-investigator Giangrande. "The data collected during this field campaign, the subsequent data analysis and modeling studies, and the insight gained into the processes controlling the life cycle of convective storms should have an immediate and long-lasting impact on the modeling of our climate system."

— Karen McNulty Walsh

NSLS-II Components *from p. 1*

With this relatively new technology of RF-superconductivity, the very high accelerating fields needed at NSLS-II will be generated with high efficiency. The AES cavities will produce the required 4 million volts of accelerating voltage with less than 200 watts dissipated in the cavities. Compared to conventional copper cavities, which would dissipate many hundreds of kilowatts, superconducting cavities provide significant energy savings over the life of the accelerator.

The RF system will provide up to 540 kilowatts of power (1 kilowatt equals 1,000 watts) to the electron beam in the NSLS-II ring. A future upgrade is envisioned for the final configuration, which will require two more cavities.

In carrying out this work for NSLS-II, AES is partnering with Meyer Tool and Manufacturing, Inc., outside Chicago. AES is also collaborating with Cornell University, which developed the cavities in the 1990s and licenses them for production.

"This is a very important project for AES's growth," said Tony Favale, President and CEO of AES. "It follows a natural progression of past achievements in underlying technology areas and enables AES to bring these together in one package."

According to Favale, AES has added 19 new employees in the past 18 months and is still looking to hire project, design and analytical engineers, as well as an RF technician. The project will also create several jobs at Meyer Tool.

Under its contract, AES will build two turnkey systems, each with a niobium superconducting cavity enclosed in a module to keep the cavity super cold. As part of the production process, the niobium cavities will undergo a high-pressure water rinse at a newly constructed facility at AES, partially funded by Brookhaven Science Associates, which manages BNL for DOE, and by New York's Empire State Development Corporation. Next, the cavities will undergo a vertical cryogenic test at BNL. AES will then complete the assembly, install the cavities in the NSLS-II and commission them under guidance from NSLS-II staff.

— Mona S. Rowe

Talk on 'Successful Aging,' 5/12

Registered dietitian Amy Shapiro will talk on "Successful Aging" on Thursday, May 12, in Berkner Hall, Room B. Shapiro will focus on ways in which superfoods, supplements and nutrition can sustain and improve long-term health. All are welcome. To register contact Michael Thorn, *mthorn@bnl.gov* or Ext. 8612.

Donations for AdoptaPlatoon

This month, the **AdoptaPlatoon** team in the Brookhaven Veterans Association (BVA) is collecting sunblock, baby wipes, and instant drink mix in individual stick packages for the Lab's adopted platoon. Drop gifts in boxes located at Bldg. 490, clinic; Bldg. 400, lobby; Bldg. 488, lobby; and Bldg. 510, library.

BREA Tours BNL Facilities, 5/18

On Wednesday, May 18, the Brookhaven Retired Employees Association (BREA) will sponsor a morning tour of the Research Support Building, the Center for Functional Nanomaterials (CFN), and the National Synchrotron Light Source II, now partially complete. The program includes a luncheon ($8). Retirees and their guests can reserve with Ken Mohring, *kenwadingriver@gmail.com*, or Eena-Mai Franz, *SROOSILD@aol.com*. Or, send a note to BREA at Bldg. 421. For more on the agenda, see *www.bnl.gov/bera/activities/brea/default.asp*.

Annual Joint NSLS/CFN Users' Meeting, 5/23-25

The Joint National Synchrotron Light Source (NSLS) and Center for Functional Nanomaterials (CFN) Users' Meeting, to be held May 23-25, will provide a venue for scientists who use the NSLS and CFN facilities to share their work and discuss future directions for their research. New research results and advances in experimental capabilities in synchrotron radiation and the nanosciences will be highlighted.

This year's theme will focus on "Nanotechnology for Energy and Health" to highlight the vital roles served by DOE's Synchrotron User Facilities and Nanoscience Research Centers. Scientists who use both the NSLS and CFN are actively engaged in developing nanoscience, nanotechnology, and nanoscale imaging for life science applications.

The program includes updates from DOE's Basic Energy Sciences and BNL management, invited talks, workshops, a poster session, and exhibits showcasing new technology and instrumentation.

The keynote speaker on Tuesday, May 24, will be Thomas A. Steitz, Sterling Professor of Molecular Biophysics and Biochemistry, and Professor of Chemistry at Yale University. Steitz is one of three winners of the 2009 Nobel Prize in Chemistry for his work on the structure and function of the ribosome, the protein-making factory key to the function of all life. He is also giving a lecture on May 23 at 4 p.m., see p.1.

Following Tuesday's plenary session, the NSLS Users Executive Committee (UEC), in conjunction with the Photon Sciences Directorate, will host a poster and information session on the future NSLS-II beamlines.

The Tuesday main meeting and plenary sessions are open to all, free of charge. For more information on the meeting, go to *www.nsls.bnl.gov/users/meeting/page.aspx?year=2011&id=home*.

Users are reminded that the last day to register without paying a late fee is today, May 6. Go to *www.nsls.bnl.gov/users/meeting/registration/?year=2011*. BNL employees and guests are welcome to register for workshops and other meeting events (registration and a nominal fee are required). For more information, go to: *www.nsls.bnl.gov/users/meeting/page.aspx?id=home*.

BNL Values Take Root

By Bob Lincoln, Interim Chief Human Resources Officer

During the next couple of months we will revise each employee's Roles, Responsibilities, Accountabilities, and Authorities (R2A2s) to include the Brookhaven National Laboratory Values we developed last fall as part of the Blueprint. This is an important first step to make the values a way of life at the Lab as we strive to achieve simultaneous excellence in science and technology, operations, and relations with our stakeholders.

In November 2010, after a good deal of work to collect and weigh Laboratory staff and management suggestions, we launched the BNL Values. They are intentionally simple and straightforward. Our Values are:

- Leadership
- Integrity
- Responsibility
- Innovation
- Safety, Security, and Environmental Stewardship
- Respect
- Teamwork

Each value is supported by expected behaviors that illustrate its understanding or meaning. The full list, including a downloadable flyer, is available on the intranet: *www.bnl.gov/hr/values.asp*.

Consistently striving to meet the Values is crucial to building leadership capability among staff, the management team, and the Laboratory itself, and ultimately achieving the growth and aspirations in our strategic plan. The Values only have meaning if we work to them and make them a way of life at BNL, so developing the Values last fall was only the start and not the end of something.

As an important early step, Lab leadership is adding the Values to all employee R2A2s, which outline an individual's performance expectations. As we complete this, we will also change our appraisal procedures to evaluate employee performance. Starting this fall, employee performance appraisals and their results will be directly tied to our Values. You will see and hear more about this as we start making these changes to the R2A2s.

We are taking several additional actions as part of the Blueprint to make the Values a way of life at BNL, and much of this is focused on Laboratory leadership:

Leadership Competency Models: We are formally defining the knowledge, skills, experience, and other attributes that are important to a leader's success at the Lab. This work is nearing completion, and the Values are reflected in the draft models now under review.

Incumbent Manager Assessment/Development: This summer we will assess senior Lab managers against the Leadership Competency Models. The results will be used to establish development plans to improve individual (i.e., manager) performance in specific areas.

Leadership Training and Development: The Leadership Competency Models will be the foundation for a leadership training and development program that will eventually touch all Laboratory managers and supervisors. We are completing benchmarking visits to observe best-in-class programs in industry, and we've hired a Learning and Development Manager who will spearhead this effort.

We will also use the Leadership Competency Models to identify, develop, and hire future Laboratory leaders. They will be the foundation of our succession planning and recruiting programs; the changes to these programs will be made later this fiscal year.

All these are important steps to help build our leadership capability — a central part of the Blueprint — as individuals and for the Lab as a whole.

BLUEPRINT

Learn more about the Blueprint, the Laboratory's plan for growth and development, online: *http://intranet.bnl.gov/blueprint*

Talk on Lise Meitner, Nuclear Fission Discoverer, 5/19

Physicist Andrea Palounek of Los Alamos National Laboratory will talk on "Lise Meitner and the Discovery of Nuclear Fission" on Thursday, May 19, at 4 p.m. in Berkner Hall. Meitner gave the first theoretical explanation of the fission process. Sponsored by Brookhaven Women in Science, the talk is free and open to the public. All visitors to the Lab 16 and older must bring a photo ID.

Steitz's Talk *from p. 1*

…Medical Institute in 1986. Steitz is currently the Sterling Professor of Molecular Biophysics & Biochemistry and Professor of Chemistry at Yale and an investigator at the Howard Hughes Medical Institute. A member of the National Academy of Sciences since 1990, Steitz has won many awards, including the Pfizer Award in Enzyme Chemistry in 1980; the Rosenstiel Award for Distinguished Work in Basic Medical Research and the American Association for the Advancement of Science's Newcomb Cleveland Prize, both in 2001; the Keio Medical Science Prize in 2006; and the Gairdner International Award in 2007. — Diane Greenberg

Energy Innovators *from p. 1*

BNL created a streamlined start-up option agreement template for entrepreneurs. Potential participants will have until December 15, 2011 to submit their option request and business plans to OTCP. Entrepreneurs who complete the requirements for licensing energy technologies and show progress toward executing their business plan and commercializing the technology will have the opportunity to be showcased at the 2012 ARPA-E Energy Information Summit, which brings together leading technology start-ups and clean energy investors from around the nation.

For BNL technologies that are available for licensing under the new program, go to: *www.bnl.gov/tcp/IntellectualProperty/Startup%20America.asp*.

The technologies are in the fields of energy and environment, to electronics and instrumentation, materials chemistry and nanotechnology, to biotechnology and health care. They range from low-cost materials for solar cells to electrocatalysts for fuel cells that make possible efficient energy applications, and thermoelectric materials that can convert waste heat to energy.

— Diane Greenberg

Arrivals & Departures

— Arrivals —

Adam Bzdak ..... Physics
Elizabeth Ricard-McCutchan ..... NS&T
Zhijun Xu ..... CMPMS

— Departures —

Peter Albrecht ..... CFN
Denis Joyce ..... En. & Utils
Wei Lin ..... Biology
Gang Liu ..... Env. Scis
George Meinken ..... C-AD

Deployed HR: Donna Dowling Brings Deployed HR Model to NPP

Donna Dowling has learned a few things during her 29 years at BNL. Chief among these lessons is that things at the Lab are always in a state of change.

"You'll find this experience is common for any of us who have 'grown up' here at the Lab," said Dowling, who has held many different jobs in recruiting and labor relations since she joined the Human Resources & Occupational Medicine Division in 1982. "I was in my 20s when I started here, and all along the way I've had wonderful opportunities, made wonderful transitions from one job to the next."

Roger Stoutenburgh D4690411

And now in 2011, Dowling finds herself faced with a fresh challenge as the newest Human Resources Manager (HRM) to be named to the deployed HR team. She will support the Nuclear & Particle Physics (NPP) Directorate in its recruiting and policy efforts and advise directorate leaders on succession planning, workforce planning, and leadership development.

"This is new for us and we're looking forward to having Donna support the directorate," said Joe Tuozzolo, chief mechanical engineer of the Collider-Accelerator Department (C-AD). "Getting someone who is experienced in many areas is going to help us quite a bit. She's familiar with what we do and I expect there will be a very short learning curve for her."

In fact, Dowling helped recruit many of the people now in NPP who she will now support and advise.

The deployed services model is still relatively new for the Lab. Dowling joins three other new HRMs: Christel Colon, who supports Basic Energy Sciences, Environment & Life Sciences, and Global & Regional Solutions Directorates; Joann Williams, who supports the Business Operations Directorate, the Community, Education, Government & Public Affairs Directorate, the Director's Office, the Environment, Safety & Health Directorate, the Facilities & Operations Directorate, Science & Technology, and HR itself; and Joanna Hall, who supports the Photon Sciences Directorate. Of the three, only Hall has been at the Lab more than a few years, so this HRM team pulls together a group of human resources specialists with wide-ranging experience and backgrounds.

"As I learn the deployed model, I'm asking a lot of questions of Christel, Joann, and Joanna, who have all worked in this kind of system before," Dowling said. "It's a good group and I'm lucky to be involved with them."

Interim Chief Human Resources Officer Bob Lincoln said he is glad to have found such a good fit for NPP.

"Her experience and organizational knowledge will help her serve NPP well," Lincoln said. "She'll also be a fantastic resource for her fellow HRMs on the deployed team. Donna's an experienced HR practitioner, with a strong background in talent acquisition, employee relations, career counseling, and labor relations."

Dowling joins Lincoln, Colon, Williams, and Hall for bi-weekly meetings where they discuss Labwide hiring concerns and also share developments in each of their client directorates.

In her most recent job, she supported Dave Allshouse, Labor Relations Manager for the Lab. But the new job means she will broaden the scope of her work.

As an HRM, Dowling is supported by the full HR department. By being located within the group she serves, she will be involved more closely with day-to-day operations.

"And I'm really looking forward to being with the people of NPP," she said.

The deployed services model is a vital part of the Blueprint, the Lab's strategic vision and plan to transform itself into a more competitive resource in the DOE complex.

"As a part of the Blueprint, just as I'm transitioning, the NPP directorate will be transitioning," she said. "They are incredibly well-run but we need to implement new policies that will help them down the road. I'll be helping them in every aspect of human resources, which will allow NPP's leaders to focus on scientific research and discovery. For example, now I'll be working with managers on developing performance improvement plans."

To that end, Tuozzolo said he can hardly wait for Dowling to be fully engaged with the directorate.

"I've worked with Donna before, as a manager," he said. "She knows the business of human resources and is very good to work with. She's an experienced HR pro, with a wide range of experience here at the Lab. That's what got her the job, in my mind. She's thoughtful, quick, and down-to-earth. That really endeared her to us."

Dowling has already started working on NPP's hiring needs.

"That's an area where a dedicated, deployed HR person will be a great help," Tuozzolo said. "She'll be dealing with all the HR issues and helping us work our way through things."

— Will Safer

BLUEPRINT

Learn more about the Blueprint, the Laboratory's plan for growth and development, online: ***http://intranet.bnl.gov/blueprint***

'You Talk' Tuesdays

Workshop for non-native speakers of English to practice giving talks or presentations

The English for Speakers of Other Languages (ESOL) Program invites non-native English speakers to "You Talk" Tuesdays, a workshop in which you can come and practice your upcoming talk or presentation. Peers will give advice and the BNL ESOL program coordinator will provide feedback on pronunciation, grammar, and presentation style. This is an informal workshop to practice public speaking in a friendly and supportive environment. Topics include using gestures and eye contact, and knowing your audience.

The schedule for "You Talk" Tuesdays is May 17, 24, and 31. The group will meet in Bldg 400 conference room 2 on May 17 and 31, and in conference room 1 on May 24, from noon to 1:15 p.m. Feel free to bring your lunch. You can come to one or more sessions. Please do not come later than 12:15 p.m.

Please contact ESOL Coordinator Jennifer Pieniazek, Ext. 4894 or *jpieniazek@bnl.gov* to register or for more information.

LIANS Dinner Meeting, 5/18

At the next dinner meeting of the Long Island Chapter of the American Nuclear Society (LIANS), on Wednesday, May 18, Robert Bari of BNL's Nuclear Science & Technology Department will talk on "Small Modular Reactors." Bari is an elected Fellow of the ANS and was honored with the ANS "Tommy" Thompson Award in 2003.

The LIANS meeting will be held at the Brickhouse Brewery and Restaurant, 67 W. Main St., Patchogue, (631) 447-2337. Complimentary appetizers/cash bar will start at 6 p.m., dinner at 7 p.m., and Bari's talk at 8 p.m. The cost is $25/person. To reserve, leave a message with Arnie Aronson, Ext. 2606, by Monday, May 16.

CALENDAR

Today, Friday, 5/6

AdoptaPlatoon Plant Sale
11 a.m.-1 p.m. Berkner Hall parking lot. Buy plants to support troops. Rain? Bldg. 400.

BJ's Wholesale Club
11:30 a.m.-1:30 p.m. Berkner Hall lobby. BJ's membership drive, discounts, giveaways.

— WEEK OF 5/9 —

Thursday, 5/12

***Talk on 'Successful Aging'**
Noon-1 p.m. Berkner Hall, Room B. Dietitian Amy Shapiro talks on health, food. See p. 2.

***Free Film for Asian Pacific Heritage**
5-7 p.m. Sponsored by BERA APAA. "Don't Burn It," a story of travel by the head of an infirmary in war-torn area. All Lab community welcome. See p. 4.

— WEEK OF 5/16 —

Monday, 5/16

***Defensive Driving, Part I**
6-9:15 p.m. Brookhaven Center South Room. Part II on 5/23 is in Bldg. 490. See notice below.

Wednesday, 5/18

***BREA Tour, Lunch for Retirees**
9:15 a.m. Research Support Bldg. 400 conference room. See notice, p. 2.

469th Brookhaven Lecture
4 p.m. Berkner Hall. Andrew Vogelman, Environmental Sciences Department, on "The Skinny on Thin Clouds." All are welcome to this free talk, open to the public. Visitors to the Lab of 16 and older must carry a photo ID.

Thursday, 5/19

***Talk: Lise Meitner, Nuclear Fission**
4 p.m. Berkner Hall. Physicist Andrea Palounek, Los Alamos National Laboratory, will talk on "Lise Meitner and the Discovery of Nuclear Fission." Open to the public. Visitors to the Lab of 16 and over must carry a photo ID.

— WEEK OF 5/23 —

Monday, 5/23

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

Join the Veggie Club!

Join the Community Supported Agriculture (CSA) group to get fresh produce from an organic farm in Water Mill, where the Halsey family grows 350 varieties of fruits and vegetables. If you join, for 26 weeks, June 2 to November 22, freshly picked seasonal produce will be delivered to BNL for you to pick up. The fee is $420. Pay immediately or in two installments of $285 on sign-up, by May 20, with one post-dated check for $135, post-dated for July 13, 2011. For more information, brochures are in the BERA Store in Berkner Hall, or contact Ruth Comas, *comas@bnl.gov* or Ext. 3545.

Defensive Driving, 5/16, 23

The next six-hour Defensive Driving (Point & Insurance Reduction) course will be held in from 6 to 9:15 p.m. in two parts, on two Mondays: 5/16 in the Brookhaven Center South Room, and 5/23 in the Medical Bldg. 490 Large Conference Room. The course is open to BNL, BSA and DOE employees, BNL facility-users, contractors and guests, and family members. The cost is $33 per person. Preregistration is required. To register, call Ed Sierra, 821-1013. Or take a New York DMV approved course (Use code: "SAVE10" for $10 discount) online: *www.lidrivesafe.com/*.

BNL Funding Opportunity

Technology Maturation Call for Proposals

By Walter Copan, Manager, Office of Technology Commercialization & Partnerships

In the commercialization end of our work here at Brookhaven, we often hear comments like: "Looks like it might be a great discovery — but can you show that it works to solve an important problem the 'real world' cares about?" Or "Do you have any data to demonstrate that this works, so my company could get interested enough to partner with you?"

In response, do you find yourself saying, "I just wish we had some funding for that next experiment to take this to the next level — and we'll show you what we can do."

Well — here is your chance! The BNL call for proposals for technology maturation funding is now open. This funding is intended to move promising research discoveries from the laboratory stage to a real world "proof of concept" stage, and to a degree of development sufficient to create partner interest toward successful deployment.

You can find links to all the details of the 2011 Technology Maturation program at *www.bnl.gov/tcp*. Proposals are due June 10, 2011. Proposal teams should consider involving collaborators from other departments to provide needed resources for project planning and execution. Cross-functional collaboration is extremely helpful and, in fact, may be the only way some maturation projects can be completed. Scientists in some departments, for example, Basic Energy Sciences, who have completed initial research with promising results, may need the assistance of someone in another area, for example, Global & Regional Solutions or Instrumentation, to complete their proposed maturation project.

We've incorporated several new features into the maturation program for 2011. We are emphasizing the availability of "seed funding" for projects, where more smaller-scale projects (with total budgets of less than $50,000) can be funded to move technologies toward maturation.

The maturation project should be designed to achieve specified results and milestones toward a successful outcome, whether its total budget is more or less than $50,000. Continuation funding for the selected maturation projects will be contingent on successful achievement of the milestones — a "stage-gate" process. We also introduce "Technology Readiness Level" (TRL) to indicate how far along the development pathway a technology has come. Proposers should identify the current stage of development of the technology, referring to the TRL explanations guide on the Technology Commercialization and Partnerships (TCP) website, as well as their expected TRL upon successful completion of the proposed project.

Clearly, many of BNL's discoveries and inventions are at the basic research stage (TRL 1). Each proposal team selected as a finalist will make a brief presentation to the Selection Committee on its proposal and the potential for impact. The date planned for presentations is June 29, 2011.

We strongly recommend that teams planning to submit Technology Maturation proposals consult with TCP staff in the preparation of proposals. We look forward to supporting our promising Brookhaven discoveries, and to helping Lab scientists take them to the next level of development toward new partnership opportunities and deployment impact.

Brookhaven Lab on the Go

Now easier to get BNL phone directory, news, events, more on your smart phone

By Gary Schroeder, Manager, Web Services

In August 2010, *Wired Magazine* stirred up controversy (and a lot of publicity) when it proclaimed, "the web is dead. Long live the internet." This intentionally attention-getting headline created quite a bit of confusion. The "web" is clearly growing in size and influence, so what were they talking about? The authors were pointing out that while internet usage statistics have marched steadily upward, the hardware we're using to access online information has changed. The desktop browser is not always the first choice for downloading internet-based data. Increasingly, it's the smart phone.

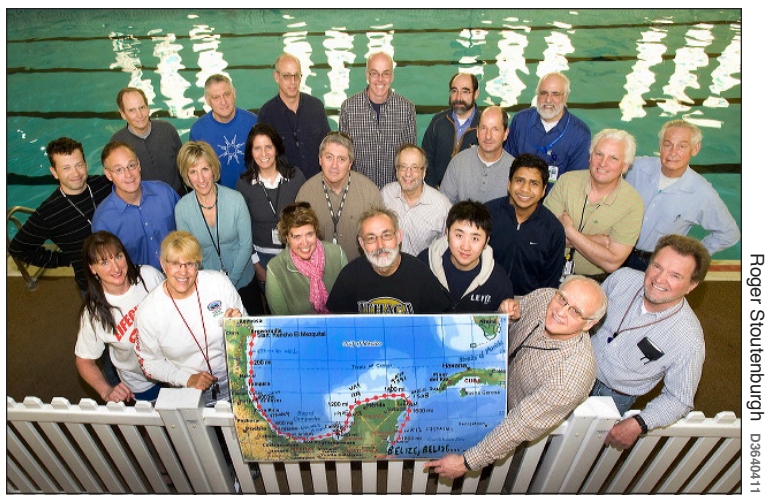
Joseph Rubino D0030511

For some time, it has been clear that BNL smart phone users want simple mobile access to common Laboratory information. Web Services is pleased to announce that this type of access is now available to anyone with an iPhone, Android, BlackBerry, or other smart phone.

Mobile versions of the staff directory, news and features, events calendar, local weather, and Twitter feed are now available simply by pointing your phone's web browser to *www.bnl.gov*. Even announcements of delayed openings and Lab closings will be available on your phone. These are not "apps" that have to be downloaded; they are the same web pages that you've used hundreds of times before, tailored for delivery to the smaller screen sizes of hand-held mobile devices. For all intents and purposes, they behave as if they are apps. iPhone users, for instance, will see these web pages rendered in the familiar visual style of apps available for download from Apple's App Store. Other smart phones will render these pages in slightly different ways.

Part of this renovation in data delivery includes a redesign of the Laboratory staff directory. Now, anyone accessing the online directory via a desktop web browser finds a slightly different interface. This version features some key improvements from the last edition. Previously, it was necessary to select whether to search by last name, first name, phone extension, or email address. You no longer need to make that selection. Simply begin typing any of those data types and the system will find the best match. It will also attempt to make that match "on the fly" as you type, much as Google does via its auto-complete feature. Also, the display of query results has been redesigned for significantly easier reading. (Note that while the directory is part of the Lab's new mobile offerings, auto-complete is not available in the mobile version and manual selection of search criteria is still required.)

We hope that the Lab community will be pleased with these new services. If you have any comments or suggestions after taking them for a "test drive," please feel free to email me directly. A question and answer page is available at *www.bnl.gov/web/mobile*. It will be updated as new questions are received.


Roger Stoutenburgh D3640411

2011 Virtual Swim to Belize

The 2011 virtual swim to Belize, which began on January 3 and was triumphantly completed as planned on March 31, was the BERA/BNL Swim Club's fifth sponsored virtual swim. The swim "started" on the northern Mexican border and ended in Belize, a trek of 1,944 miles. The goal was achieved by adding the total number of laps swam by 134 participating swimmers — many of whom celebrated at a get-together dinner at a local restaurant soon afterwards.

During the past five years of virtual swim events at BNL, participants have swam more than 7,500 miles, and the calories burned translate to a weight loss of about 700 pounds. Next year's virtual swim will continue through the Panama Canal and up the west coast of Mexico. Please join in next January.

Asian Pacific American Heritage Month

BERA APAA Sponsors Free Film Showings, 5/12, 24

The Lab community is invited to attend a free showing of the film *Don't Burn It* in Berkner Hall at 5 p.m. on Thursday, May 12. The film is one of a series being shown by the BERA Asian Pacific American Association (APAA) to mark Asian Pacific American Heritage Month. *Don't Burn It* tells the story of a rugged journey by medic Dang Thuy Tram from Hanoi, who headed an infirmary in a war-ravaged area where, as written in her diary, "Death can be easier than having a meal." All are welcome to attend.

APAA will sponsor two more films that are free for the Lab community. On Tuesday, May 24, *Departures* will tell the story of an unemployed young cellist who changes his career. Retreating to his hometown, he trains as a professional *nakashi,* one who prepares the dead for burial. Another film is expected to be shown during the week of May 16.

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

08 BMW 335I – 52.5K mi. mint, 335i, leather, 6spd, s/roof, all pwr, prof maintd, 33mpg. $29,500 neg. Brandon, Ext. 4028.

08 NISSAN PATHFINDER – 25K mi. white, excel. cond., too much to list. Pics, info on requ. $23,000. Ext. 3500, irachel@bnl.gov.

06 JEEP COMMANDER – 106K mi. 8cyl, a/t, NAV, sunroof, loaded. 891-9662.

03 KIA SORRENTO – 109K mi. Blk., 6cyl., 4-dr, 4wd, all pwr., Not running. Needs eng. repair, $900 neg. Ext. 4080, 821-1013.

01 CHEVY TAHOE – 132K mi. 5.3 V8, 4wd, recently tuned-up, new tires, runs well, v/clean. $7,400. 516-924-0610.

00 MAZDA MIATA – 75K mi. Silver LS pkge (Base, leather, traction etc.). Needs a top. $6,900. Ext. 7178 or sampson@bnl.gov.

99 CHEVY MALIBU – 102K mi. Silver. Orig owner, all maint records. V. gd condition, $4,000 neg. 344-4661, dgordon@bnl.gov.

MOTORCYCLE BATTERY CHARGER – Sears, 12 volt, 1.5 amp $12. Frank, Ext. 2022 or dusek@bnl.gov.

TRAILER HITCH RECEIVER – Toyota Tacoma/$15; luggage rack for hitch receiver 21"x4'8"/$35; Ronald, 298-5625.

TRIFOLD TONNEAU COVER – brand new, black, for GMC/Chevy's w/5.8' bed, ask/$475. Steve, 813-6583.

Boats

9' YAMAHA JETSKI GP1200 – 2001 very fast and clean, great shape, price firm. $2,800. Paul, Ext. 3981, humbert@bnl.gov.

25' CAPE DORY 25 – 25' Capde Dory 3' draft full keel, '78 excel cond. New eng., sails, genoa. more.$5,000 neg. Ext. 4708, 371-9327.

17' HYDRO SPORT 1750 CC – center console, clean, 140 yamaha, trailer, all '89 gd cond, extras. $3,500. Ext. 7861, 849-2329.

Furnishings & Appliances

5PC CHERRY WOOD BDRM SET – w/qu sz sleigh bed, 2/drssers, 2/night stnds, pics, grt. cond. ask/$1,200. Ext. 2431.

5PC WOODEN KITCHEN SET – Round Tbl, built-in leaf opens to seat 6-8, 4 chrs buyer pick up, ask. $300. jtruitt@bnl.gov.

BEDROOM FURNITURE – dresser, sm desk, twin bed frame w/ headbrd and ftbrd, $100/all, photos avail. Ext. 5331.

BEDS – 2, in good cond. Bob, Ext. 3903.

DINING TABLE, CHAIRS – Solid white wash wood tbl w/leaf ext. 5.5'x3.5', 6 chrs, $400 neg. Ext. 4080 or 821-1013.

FREEZER CHEST – lg Kenmore/$150/neg, glider rocker, maple chair, $200; pics avail. 516-740-8418, lcade@uspsports.com.

KITCHEN TABLE & CHAIRS – Maple Tble w/leaf, 4 Spimdle back chrs. Mint condition. $300. 344-4661 or dgordon@bnl.gov.

LEATHER SECTIONAL – Brand new couch w/2 builtin recliners. L shapd. modular, brown. Pics. Must Sell, Ask $2995. Joseph, Ext. 2567.

ENTERTAINMENT UNIT – oak, holds up to 36" TV, CD rack; glass disply case w/light; 2 enc cabinets, pics, ask/$175. zendzian@bnl.gov.

TODDLER TRAIN BED – Little Tikes. 70"L x 34.5"W x 41.75"H Max: 50 lbs. Mattress not incl. $80. Rob, BNLtoddlerstuff@gmail.com.

Audio, Video & Computers

22 – Insignia brand, w/black tie warr fr Bst Buy, HDMI,VGA, HDTV Tuner, w/rem $120; 32GB APPLIE IPAD w/apple/$400, Ext. 2122.

DELL LATITUDE E6500 – 2.4GHZ C2D, 4GB RAM, 250GB 7200RPM HD, 15" WXGA+LED display, warr. $600. Ext. 3970.

POWERED SAMSON MONITORS – 2, 15," in/outdr, Smsn DBA500 pwrd, built-in amp, incl 2/stands, ask/$700. 347-581-3731.

TV/VCR COMBO – Sharp 13" w/rem. Works fine. Ask $35. Ext. 7235 or fitz@bnl.gov.

WIRELESS KEYBOARD & MOUSE – Dell, like new/$20. Ext. 5669, harringt@bnl.gov.

Sports, Hobbies & Pets

AB WORKS BY NORDIC TRACK – back/neck support, you can workout diff. areas, pics, $50. 909-7080 or lysik@bnl.gov.

BOWFLEX MOTIVATOR – w/lat pulldown & leg exten, excel cond, $450/obo. 878-1303.

CELLO – for serious student, excel, w/case. Stephen, Ext. 4475 or plate@bnl.gov.

ELECTRIC GUITAR – Epiphone Special II, Ebony, new in box, autographed by Joe Bonamassa, $250. 878-1303.

EXOTIC GOLF CLUBS – a few Touredge: cb2 3 wood, new cb4 5 wood, new 4 hybrid exotic, best offer. One or all. Ext. 3124.

FREE AGENT AIR STRIKE BMX BIKE – grt cond, hardly used, kept in gar, minim weather dmge, $100/neg. rburns@bnl.gov.

GARMIN GPS – Legend Cx handheld. Works perfectly, 1 GB mem chip loaded. Full US 100K topo maps incl. $100. shrey@bnl.gov.

GUITARS – Aria STG-Series, electric strat, blue, exce cond, $150 - Magnum 6-strg acoustic, cut-away, $75, 831-3469.

JAMES DEAN DOLL – 12" '94, w/orig stand, w/blue jeans, red jacket, $25. Ext. 2733, 395-6784, dipierro@bnl.gov.

MENS IRONS – 3-P, Vectra, senior-flex, graphite shaft. Good for beginner, good condition. $35.00. 929-4270.

TREADMILL – Sears ProForm, works well, pick up in Miller Place, $200. Phil, Ext. 5669 or harringt@bnl.gov.

Tools, House & Garden

ANDERSON WINDOW - rough opening 24"x72"; glass 20x5'8"/$30. 298-5625.

TOOLS – various tools useful around the house. Bob, Ext. 3903.

WEBER GAS GRILL – used, still works well, $100. 344-4661 or dgordon@bnl.gov.

Miscellaneous

3 YORKIE PUPPIES – Pure Breed, only 2 wks old, can pick up in 6 wks, call for price. Ext. 4495 or mjones@bnl.gov.

BABY'S ITEM – Safety 1st Rocking Jitter Buggy, $10, pic avail. Rachel, Ext. 3500.

DICKENS VILLAGE – Selling collection of Dept 56 village houses, accessories. Many items for sale. Barbara, Ext. 5656.

EXERCISE BICYCLE – excellent condition. Asking $25. Bob, Ext. 3903.

POWER/CHILL – Hot/Cold Thermoelectric Cooler. 40 qrt capacity. $50. 878-2425.

SHARK CORDLESS SWEEPER – Gd cond. $20/ea. Ext. 2716, storan@bnl.gov.

Yard & Garage Sales

MT. SINAI – Temple Beth Emeth Yd Sale. 52 Mt Sinai Av, Sun. 5/15, 10-3p. Toys, games, house, clothes, applis, more. 744-8632.

Community Involvement

KARA'S HOPE 5K RUN/WALK – Kara's Hope Foundation 1st Annual 5K Run/Walk for Scholarships, Sat, 5/21, Southaven Park. Register at www.karashopefoundation.org. Jeffrey, Ext. 5587, 504-8940.

Happenings

CRUISE – 7 Day Caribbean Carnival Cruise, Apr 15, 2012: St Thomas, Barbados, St Lucia, St Kitts, St Maarten w/1-fun day at sea. $876.72 dbl occup balcony. Kim, Ext. 2896, 399-3098 or khayes@bnl.gov.

FROM OPERA TO BROADWAY – Yvette Blum: Sings Classical w/Dan Ragone,pianist,@ North Shore Lib, Fri, 5/27@ 7pm, Free, Open to Public, Songs, "Opera" Carmen, Vivaldi, Rodrigo, WS Story, Kiss Me Kate!. Yvette, Ext. 5591.

Wanted

BABY CRIB – used, for a low price or for free, please e-mail to yhu@bnl.gov, thanks. Yong, Ext. 3961.

CHILDREN'S PIRATE COSTUME – need a size 8/10; gd as new or gently used. Dorene, price@bnl.gov.

ENCLOSED TRAILER – Looking to borrow for a few days to move kids home from college. Kevin, Ext. 3448.

FIREWOOD – cut downed hardwd logs oak, maple, etc split or non split, will remove free, nr Rocky Pt. Ext. 7861, 849-2329.

OLD COMIC BOOKS – Collecting old comic books from the 40s, 50s, 60s, and 70s. Cash paid. Ext. 2122 or jmontalto@bnl.gov.

TODDLER CAR SEAT – used, for a low price or free, please e-mail. orlando@bnl.gov.

For Rent

WEEKI WACHEE SPRINGS, FL – priv Gulf Coast Ranch, 45m Tampa, nr beach, tennis, Islip dir, igp, lanai, trees, 3 bdrm, 2bth, ad/r, f/p, 2x gar, shed, $950/mo. Also for sale, $129,000. 344-5537.

BELLPORT VILLAGE – 1 bdrm upstrs apt in 2fam home; village amenities; prvt ent/drway, carpeted, light, lr/kit combo, no smkg/pets, utils incl. $1,100/mo. 275-0745.

FIRE ISLAND – Beach cottage, Davis Park, 2 bdrm, 1 ba, 2 decks, outdr shower, dir TV, quiet, $1700: 8/1-8, 8/8-15, 8/15-22, 8/22-29. $6,000/mo. Paul, Ext. 3981.

MEDFORD – Bi-level condo-2bdrm, 1.5bth, new kit/bth/htg/win) w/igp/golf/gym, approx 8 mi to Lab. $1,595/mo neg. GS, 880-7584 or gsrentit@gmail.com.

MIDDLE ISLAND – 1 bdrm,1st flr, full kitch/bath, sep ent, no smkg/pets, incl all, quiet prof area 5 min to Lab, 1 mo sec. $1,000/mo. 807-5196 or trs234@yahoo.com.

PATCHOGUE VILLAGE – 2 B/R house—1 blck: water & park, 1.5 car gar, renov kit, ba, & master b/r; priv. yard, deck, no smkg/pets. Utils not incl. $1,800/mo. 730-6831.

PORT JEFFERSON – 3 bdrm hse 2 ba, l/r w/fp, d/r, new kit, h/w flrs, hse newly refurbishd, all Village amens, no smkrs, sm pet ok, utils extra. $1,700/mo neg. 928-8993.

ROCKY POINT – 1 bdrm apt, sep. ent, full kitch/ba, new carpet/paint, pets welcome, walk to beach, approx 10 mi to Lab. $1,100/mo neg. Ext. 8104, 516-967-6699.

SHIRLEY – main flr, 1 bdrm apt, pvt ent, lr/kit combo, granite, new appl, full ba, hdwd flrs, off st prkg, no smkg/pets, single pers, credit chck, 1st & last sec, $1,000/mo. all. 848-6353.

SHIRLEY – lg 1 bdrm bsmt apt, single person, close to beaches/parks/freeways/lirr/lab, all incl, 1 mo + 2 mos sec. $750/mo. Ext. 3846.

SHOREHAM – nr beach, 1 lg bdrm apt w/office area, pvt ba, kit/lr combo, pvt ent w/Fr drs, drvwy prkg, mins to BNL, cac/heat/elec/cable/web accesss. $950/mo. 849-6121.

SHOREHAM – N. of N.Cntry Rd, walk to prv beach, lg legal acc. apt. w/deck, 1 bdrm w/ba, kit, l/r, w/d; water,heat,elec incl, 1 mo sec., no smkg/pets. $1,500/mo. 734-604-4777.

SHOREHAM – share hse w/professional, a lg/furn bdrm, cable TV, intnet, no smkg/pets, 8 mi to BNL, avail now. $675/mo. 578-0108 or gg19582003@gmail.com.

SPEONK – immaculate 3bdrm, 1 ba ranch, part fin bsmt, w/d, cac, deck, lg fen bkyrd, cul de sac community, 15 min to Lab. $2,000/mo. Ext. 2289 or lhubbell@bnl.gov.

For Sale

BROOKLYN, NY – 7 bdrms 3 baths multiple occupancy home, 3 flrs plus bsmt, granite top kitch, hardwd flrs. $395,000. Ross, 291-0113 or ross.burns87@gmail.com.

LOWER EAST SIDE, NY – Seward Park Co-op, 1/bdrm, lg l/r, d/r, eik, balcony w/view of NYC, laundry room, fitness center, more, ask $600,000. 467-4386.

QUEENS, NY – 3 bdrm, 2 bath Tudor style home, hrdwd flrs, fpl, cathedral ceilings, full finished bsmt. $340,000. Ross, 291-0113 or ross.burns87@gmail.com.

SHORHAM NORTH – 5 bdrm 3 bath ranch, wd flrs, bsmt w/2bdrm, 1 bath apt, full windows, pos M/D, pool, prvt beach. $350,000. 769-6162 or li08house@gmail.com.

ST. ALBANS/ CAMBRIA HEIGHTS, QUEENS, NY – 4 Bdrms/3 bath. Fully renovated, Hardwood Floors. $377,000. Ross, ross.burns87@gmail.com.

THREE VILLAGE SCHOOLS – young 3 bdrm, 2.5 bath Colonial in Three Village SD, 1/mi to SUNY, convenient to all, many amenities, $419,000 neg. 473-5957.

In Appreciation

We thank you so much: my family and I deeply appreciate your kind expression of sympathy during the loss of my father.

— Terry Jones and Family

BERA Fitness Classes

Aqua Aerobics: Tuesdays and Thursdays, 5:30-6:30 p.m. at the pool (Bldg. 478). Six-week session begins Thursday, May 19. $18/once/week, $35/twice/week.

Pilates: Wednesdays, 5:30-6:30 p.m. at the Rec Hall (Bldg. 317). Five-week session begins May 25, $25.

Yogalates: Mondays,12:15-1:15 p.m. at the Rec Hall (Bldg. 317). Four-week session begins May 23, $20.

Zumba: Tuesdays, noon-1 p.m. at the gym (Bldg. 461). Seven-week session begins May 17, $35.

Mail checks, payable to BERA, to the Recreation Office, Bldg. 400A.

the Bulletin

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Joe Gettler, assistant editor
Roger Stoutenburgh, photographer

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

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