



Generation IV International Forum On Nuclear Energy Systems Held at BNL

A group of international experts gathered at BNL on May 19-20 for a workshop to discuss how to incorporate proliferation resistance and physical protection into new nuclear reactors and their associated fuel cycles at the conceptual design stage, a few decades before the reactors would actually begin operating.

The workshop, sponsored by the Generation IV International Forum on Nuclear Energy Systems, was co-chaired by Brookhaven's

Robert Bari (front row, second from left) and Per Peterson of UC-Berkeley (front row, third from left).

The group, which is responsible for developing evaluation methods for proliferation resistance and physical protection of new designs, included representatives from Canada, France, Japan, Republic of Korea, United States, European Commission, and the International Atomic Energy Agency.

— Jane Koropsak

BSA Distinguished Lecture, 6/9 Barabási to Talk on 'Science Networks'

Albert-László Barabási, Distinguished Professor at Northeastern University and Director of the University's Center for Network Science, will give a BSA Lecture titled, "Network Science: From the Web to Human Diseases," at BNL on Monday, June 9, at 4 p.m. in Berkner Hall. BSA Distinguished Lectures are sponsored by Brookhaven Science Associates, the company that manages Brookhaven Lab, to bring topics of general interest before the Laboratory community and the public. The lecture is free and open to the public. Visitors to the Laboratory age 16 and over must bring a photo ID.

Systems as diverse as the Internet and the cell have highly interconnected networks with amazingly complex links. Recent studies by Barabási and colleagues indicate that simple but generic laws govern the evolution of these complex networks, resulting in apparently universal architectural features. Barabási will discuss the surprising order that characterizes interconnected networks and its implications in communications and medicine. He will also touch upon the next challenge of network research — quantitative studies of these interconnected systems.

A Hungarian-born native of Transylvania, Barabási earned a Master's degree in theoretical physics at Eötvös University in Budapest, Hungary. He then came to the U.S. to study physics at Boston University, where he earned a Ph.D. After a year as a postdoctoral fellow at IBM T. J. Watson Research Center, he joined Notre Dame University in 1995 as



an assistant professor, where he was promoted to Professor and Endowed Chair at the unprecedented age of 33. In 2007, he became Director of the Center for Complex Network Research at Northeastern University, where he also holds the title of Distinguished University Professor.

One of today's most cited scientists, Barabási is the recipient of numerous awards, including the National Science Foundation's Early Career Development Award, the Office of Naval Research's Young Investigator Award, the Institute of Electrical and Electronics Engineers von Neumann Award for Computer Science, and the Federation of Biochemical Societies' Anniversary Prize for Systems Biology. He was elected a member of the Hungarian National Academy and *Academia Europaea*. Barabási is the author of *Linked: The New Science of Networks*, co-author of *Fractal Concepts in Surface Growth*, and co-editor of *The Structure and Dynamics of Networks*.

— Diane Greenberg

2008 NSLS-CFN Joint Users' Meeting Coverage



Attendees at the 2008 National Synchrotron Light Source (NSLS) and Center for Functional Nanomaterials (CFN) Users Annual Meeting included: (from left) Dan Fischer of the National Institute of Standards & Technology, Users' Executive Committee (UEC) past Chair; Chi Chang Kao, NSLS Department Chair; Pat Dehmer, Deputy Director for Science Programs in DOE's Office of Science; Sam Aronson, BNL Director; Emilio Mendez, CFN Director; Molly Frame of Stony Brook University (SBU), CFN UEC Chair; Steve Dierker, Associate Laboratory Director for Light Sources; John Parise of SBU, NSLS UEC Chair; and Doon Gibbs, BNL Deputy Director for Science & Technology.

Users' Meeting Stresses Strategic Planning

Defining the role of synchrotron science and research at the nanoscale for BNL and the nation at large was a key task stressed by government and Lab officials at the third joint meeting of the National Synchrotron Light Source (NSLS) and Center for Functional Nanomaterials (CFN) user communities. About 400 visiting scientists, staff members, and scientific leaders attended the annual meeting, which ran from May 19-21.

Calling the CFN, NSLS, and the future National Synchrotron Light Source II (NSLS-II) the "backbone of the Lab's programs in photon science and nanoscience," Lab Director Sam Aronson told the plenary session audience how the facilities also enable the energy strategy of DOE's Office of Science.

"Our vision is to be the provider of choice for world-class science and facilities in support of the DOE Office of Science's mission to enable breakthroughs that ensure our nation's future," Aronson said. "These facilities play a key role in our thinking about how to attack the nation's critical energy problems."

Aronson also stressed the importance of NSLS-II to BNL's strategic plan for the next decade. "A shift will take place in the Lab's overall balance of research, which has been dominated for most of its life by research in particle physics and nuclear physics," Aronson said. "While nuclear and particle physics are and will continue to be mainstays of BNL, I see the Lab developing more of a balance between basic energy sciences and nuclear and particle physics as it goes

forward. NSLS-II is a big piece of that, as is the CFN."

Critical Decisions for Projects and the Budget

A familiar face at the annual users' meeting, Pat Dehmer took the stage next in her new role of Deputy Director for Science Programs in DOE's Office of Science. Dehmer first congratulated the CFN on achieving critical decision 4b (CD-4b), which signals the start of operations and came almost nine years after the idea for the CFN and DOE's four other nanocenters was born.

Dehmer also congratulated NSLS-II on the completion of CD-2, which sets the project's cost and schedule baseline, and outlined the five critical decisions that DOE projects must meet. Slated to achieve CD-3 by the end of the year, NSLS-II "is about halfway through its development, even though the ground has not been broken yet," Dehmer said.

Displaying a chart showing Office of Science appropriations for the last 10 years, Dehmer pointed out that only in 2007 and 2008 were funds significantly less than the amount requested by the President. "It's important to understand that the appropriations process has not been uncertain over the long haul," she said.

Dehmer praised NSLS-II for keeping the project on track with limited funds — \$15 million was removed from the project's requested budget last year. "It's to the credit of the NSLS-II team that this did not affect the schedule at which they were getting CD-2 and now, CD-3," Dehmer said. "That's a remarkable tour de force on the part of this project."

NSLS-II Update: Construction on Horizon

Next, Steve Dierker, Associate Laboratory Director for Light Sources, gave the audience an update on the NSLS-II project, which is scheduled to start full operations in June 2015.

Currently, NSLS-II staff members are working on final engineering design documents, which will be used to build the facility, Dierker said. Those will be reviewed in September, after which they expect to achieve CD-3. By early 2009, the project plans to award a \$200 million contract for ring construction, Dierker said.

"Then, things will be very busily happening to the south of us as the construction proceeds," he said. "It's been about six years that this version of an NSLS upgrade has been seriously underway and it will be about six years from now when we achieve our early project completion goal and beam will be available to the beamlines."

Recent changes to the facility's design include increases in beam height, tunnel height, and in the experimental floor's radial width, as well as the addition of spaces between the laboratory office buildings to allow for the extension of beamlines outside of the storage ring. The current design accommodates for nine of these extra-long beamlines, each up to several hundred meters long, Dierker said.

After detailing several research and development advances made in terms of magnets and optics for NSLS-II, Dierker talked about the need to develop a "coherent, facility-wide plan that is responsive to the needs of the various user" (see *Users' Meeting* on pg. 2)



At the 2008 NSLS/CFN Users' Meeting, pictured with CFN Users' Executive Committee (UEC) Chair Molly Frame (left) and NSLS UEC Chair John Parise (right), both of Stony Brook University, are poster winners: (from left) Abdel Isakovic, NSLS; Lan Zhou, University of Vermont; Cherno Jaye, Hunter College; Imke Bodendiek, NSLS; Katherine Cano, George Mason University; and Sanjaya Senanayake, Oak Ridge National Laboratory.



NSLS UEC past Chair Dan Fischer (center), presents the UEC Community award given for service, innovation, and dedication to users of the NSLS, to NSLS science associate Randy Smith (left) and Hingzhu Hu, Stony Brook University. For more information on Smith and Hu's contributions, see www.bnl.gov/today/story.asp?ITEM_NO=695.



NSLS Chair Chi-Chang Kao (left) presents Harvard University physicist Eli Sloutskin (right) with this year's National Synchrotron Light Source (NSLS) Julian Baumert Ph.D. Thesis Award for his work on liquid surfaces and the nanometer-thin layers that cover them. The prize is given for recent thesis research that includes measurements at the NSLS. Most of the measurements for Sloutskin's thesis, titled "Surface Ordering in van der Waals and Coulomb Liquids," came from NSLS beamline X22B. For more information, see www.bnl.gov/today/story.asp?ITEM_NO=696.



Organizers of the 2008 NSLS/CFN Users' Meeting are: (standing, from left) Cecilia Sanchez-Hanke, BNL; John Parise, Stony Brook University (SBU); Nancy Wright, BNL; Grace Webster, BNL; (seated) Jean Jordan-Sweet, IBM Research Division; Molly Frame, SBU; Kathy Nasta, BNL; Mercy Baez, BNL; and Gretchen Cisco, BNL.

New BNL Grants Promote Science, Math, More: Applications being accepted from local nonprofits

Local nonprofit community organizations in Suffolk County have until July 18 to apply for BNL's new BreakThru Mini-Grant. Organizations that apply may receive up to \$5,000 to fund any new or existing program designed to increase interest and strengthen skills in science, technology, engineering, and math among 10- to 15-year-old females, African Americans, Hispanics/Latinos(as), and/or Native Americans.

BreakThru Mini Grants are funded by Brookhaven Science Associates, which manages BNL, and administered by the Lab's Community Relations Office. These awards were created to bolster organizations that can inspire a new generation growing up in an increasingly scientific and technological world. A total of \$25,000 in grants will be awarded in allotments of up to \$5,000.

"We want to support new and innovative initiatives that encourage these students to enjoy and be excited about the fields of science, technology, engineering, and math," said Jeanne D'Ascoli, manager of the Community Relations office at BNL. "During the next decade, it is expected that the U.S. demand for scientists and engineers will increase at four times the rate of all other occupations," she added. "It would be terrific if some of the students in programs benefiting from these grants went on to enter scientific or technical fields."

BreakThru Mini-Grant applications must be submitted by July 18 for programs operating between September 1, 2008, and August 31, 2009. Applicants are encouraged to apply online at www.bnl.gov/community/breakthru. All BreakThru Mini-Grant winners will be notified in August 2008. For detailed information on BreakThru Mini-Grants including eligibility, criteria, and more, go to www.bnl.gov/community/breakthru or contact Jeanne D'Ascoli (631) 344-2277 or dascoli@bnl.gov.

(Users' Meeting contd)

communities." Input from the first NSLS-II User Workshop, held in July 2007, and a series of planning workshops held with the NSLS earlier this year, will be used to meet that goal.

"One clear message was the advantages, both scientific and technical, to be gained by appropriately combining communities with similar requirements," Dierker said. The white papers produced from the workshops also show why it is important for careful strategic planning, he said, as the total number of beamlines requested greatly exceeds the number of ports that will be available at NSLS-II.

"We need to prioritize among competing demands and weigh new ideas versus the needs required for the continuation of existing communities served well by NSLS," he said.

CFN Update: 'What a Difference a Year Makes'

Since its ribbon-cutting ceremony in May 2007, the CFN has gone from a mostly empty building with the goal of being the "hub for nanoscience in the Northeast and beyond," said CFN Director Emilio Mendez.

"Most of our instruments are state-of-the-art, but none of them is unique," he said about the CFN and the four other nanoscale science research centers funded by DOE's Office of Science. "We're unique because we combine a high density of state-of-the-art tools with top scientists in the nanoscience field."

Mendez gave examples of research conducted by the facility, which is divided into three themes — electronic materials, interface science and catalysis, and soft and biological nanomaterials — and stressed the importance of CFN's collaboration with the NSLS, BNL's Chemistry Department, and other facilities across the Lab.

"We are not doing more of the same, but coming at these scientific problems from a different angle," he said.

With the CFN now running at full operations, the user program has greatly expanded, Mendez said. As of the end of April, more than 260 proposals were received and reviewed, of which almost 230 were approved. The facility's staff is growing as well, with 33 scientists, support staff members, and postdoctoral students, nine of which were hired in the last year. By 2010, Mendez said, the staffing level is expected to grow to 55.

The staff is working to acquire new equipment, including an e-beam lithography system (a tool that allows scientists and engineers to create nanometer-sized electronic and mechanical devices using a computer-guided beam of electrons to "write" patterns or designs) and an aberration-corrected low-energy electron microscope and photoemission electron microscope. The staff also hopes to provide new resources for users, such as web-based access for simulations, remote train-

ing, and electronic management of user proposals, Mendez said.

NSLS Update: Keeping Active in a Tough Year

Next, NSLS Chair Chi-Chang Kao thanked staff and users for helping the NSLS achieve a number of accomplishments in the past year: receiving the best Lab-wide grades in DOE's Integrated Safety Management audit, surpassing 95 percent reliability on both of the facility's storage rings, and producing almost 1,000 publications — a record high. About 25 percent of those papers were published in premier journals, a testament to an increase in both the quantity and quality of NSLS research, Kao said.

Kao also acknowledged the difficulties presented by the budget shortfall, which resulted in about a \$7-million cut to the dollars requested by the NSLS in fiscal year 2008. In addition to slowing down the addition of new staff, delaying upgrade projects, and reducing the operating budget, machine operating hours had to be cut back for the first time in NSLS history.

"Last year was a tough year," Kao said. "It was challenging to the staff and to all of you who work with us. All we can do is prioritize, ask tough questions, and make difficult choices."

Despite limited resources, the facility still remained extremely active, Kao said. For example: plans are under way to add three more beamlines to the facility next year, bringing the total number to 68; research and development work continues to yield novel, advanced detectors for the NSLS and light source facilities around the world; a newly formed Beamline Transfer Working Group is helping guide the transition from the NSLS to the NSLS-II; and NSLS staff members, along with the Office of Educational Programs, are organizing activities for the new Historically Black Colleges and Universities User Consortium meant to train professors and students in synchrotron skills.

The number of NSLS users remains steady at about 2,200, Kao said, adding that he would like to increase the number of industrial users, which now make up about seven percent of the total.

"There's a need to bridge the gap between basic sciences and applied sciences," Kao said. "The NSLS is one of the best places to do that, because very often, you find different scientists working on similar things, but they just don't know about it. The facility's job is to get them together, to create a new paradigm of universities, industries, and the Lab working together."

Renewable/Sustainable Energy Science Talks

After brief updates from the NSLS and CFN Users' Executive Committee Chairs, Dan Fischer and Molly Frame, respectively, the audience heard from scientists who have conducted research related to the meeting's theme — "Lighting our Way to a Renewable/Sustainable Energy Future."

First up was George Crabtree, Director of the Materials Science Division at Argonne National Laboratory, who talked about "Alternative Energy for a Sustainable Future." The world energy demand is currently about 14 terawatts of power, said Crabtree, adding that in the next 50 years, "We'll have to take the power system we have now and duplicate it." Because of limited resources, as well as pollution concerns, traditional sources of electricity — oil, gas, and coal — won't be able to satisfy this demand. The solution, Crabtree said, requires the aggressive exploration of a mixture of alternative energy sources including hydrogen storage, solar power, and the use of superconductors.

Next, University of Pennsylvania researcher Cherie Kagan talked about "Molecular and Nanostructured Materials for Solar Photovoltaics." In the same way that low-cost and flexible macroelectronics, such as paper-thin video displays, are being pursued, scientists also are striving to make low-cost, high-performance solar cells, she said. Kagan highlighted advances in organic-inorganic hybrid photovoltaics, and the challenges in tailoring the materials' chemistry.

The last speaker, University College of London researcher Ian Robinson, discussed "Uses of X-ray Coherence for Exploring Structure on the Nanoscale." Robinson detailed the benefits of using x-ray coherence — which allows the 3-D visualization of noncrystalline objects with nanometer-scale resolution — to probe biological samples and nanomaterials. Currently a user at the Diamond Light Source, in England, and the Advanced Photon Source, at Argonne National Laboratory, Robinson said he hopes NSLS-II will push research further along the nanoscale.

Awards, Workshops

Each year, the NSLS Users' Executive Committee (UEC) presents the UEC Community Service Award, which honors hard work and dedication toward bettering the experience of users and the user community. UEC past Chair Dan Fischer of the National Institute of Standards & Technology presented this year's awards to Stony Brook University's Jingzhu Hu and NSLS science associate Randy Smith. The annual Julian Baumert Ph.D. Thesis Award, which is given to researchers who have recently conducted a thesis project that included measurements at the NSLS, was given to Harvard University physicist Eli Sloutskin by NSLS Chair Kao.

Eight workshops were held during the three-day meeting. In addition, at the end of the first day, participants attended the annual poster session and vendor exhibition, and awards were presented to the top six student and postdoc posters. Winners include: Imke Bodendiek, NSLS; Katherine Cano, George Mason University; Abdel Isakovic, NSLS; Cherno Jaye, Hunter College; Sanjaya Senanayake, Oak Ridge National Laboratory; and Lan Zhou, University of Vermont. — Kendra Snyder

New Accent Modification Program Planned

BNL employees who have an accent or regional dialect that makes communication difficult for participation may want to join an Accent Modification training program. If your colleagues often ask you to repeat yourself, or to slow down your speaking, or misunderstand you, you may find that accent modification for better English

pronunciation is a great tool to assist you with clearer and more effective communication skills.

The program will be held on site during August and September. It will consist of one group class and one additional private coaching session each week. To participate in this pilot program or for more information, e-mail training@bnl.gov.

Remember!

In many buildings, bins are ready for your gift of canned food. Thanks!

BNL Food Drive

More contributions needed! please!

Celebrating Earth Week 2008

Celebrations for Earth Week, April 21-25, were organized by the Environmental & Waste Management Services Division (EWMS). Some highlights included the more than \$1,800 collected from Environmental Pledge Tree pledges, with the proceeds forwarded to the Foundation for Ecological Research in the Northeast (FERN). A large audience attended the Brookhaven Lecture/Earth Week talk on a "Grand Solar Plan," by Vasilis Fthenakis of the Energy Sciences & Technology Department. A later talk by Rosemary Weisner of Brookhaven Town gave ideas on how to prepare "Garbage-Free Takeout Lunch."

BNL kicked off its first-ever Energy Challenge, in which buildings will compete against

each other to see how much energy they can conserve. At the annual Office Swap, over 75 percent of the items collected were recycled throughout the Lab, and National Synchrotron Light Source members saved over \$1,000 by finding items at the swap that are regularly used in the department. The Environmental Vendor Fair was well attended and featured great giveaways. The hybrid vehicle display was informative and also well attended. To round off the week, EWSD members and other Lab volunteers set up and staffed a BNL booth with interactive displays at the two-day Heckscher State Park Spring Festival, hosted by the New York State Office of Parks, Recreation, and Historical Preservation in honor of Earth Day.



At BNL's annual Earth Week Environmental Pledge Tree, the Environmental & Waste Management Services Division's Jason Remien and Melanie Thiesen were among volunteers who collected pledges to benefit the Foundation for Ecological Research in the Northeast.

Earth Day Awards Ceremony

On April 24, an enthusiastic audience gathered in Berkner Hall for the annual Earth Day Awards Ceremony. All were welcomed by George Goode, Manager of the Environmental & Waste Management Services Division. Michael Holland, DOE Brookhaven Site Office Manager, presented an Office of Science award to BNL senior scientist Betsy Sutherland for a new pollution-prevention technique developed in her research. Goode presented Environmental Stewardship awards to employees who made outstanding contributions in pollution prevention, recycling, waste minimization, energy, conservation, compliance, or resource conservation, and also gave awards to children from



Michael Holland, DOE Brookhaven Site Manager, presents an Office of Science Award for Best in Class to the Biology Department's Betsy Sutherland, who had developed a new, environmentally friendly technique for assessing the damage radiation causes to human DNA.

local elementary schools for their Earth Day posters on the theme of energy conservation.



BNL employees brought their hybrid vehicles to display and discuss their advantages with other interested BNLers.



George Goode presents an Environmental Stewardship Award to John Read, Plant Engineering Division, for his efforts to conserve energy at the Lab. Read received a Sylvania Energy Saver Certificate for replacing over 80 percent of T-12 fluorescent light bulbs with more energy-efficient, less hazardous "green" lighting.



Environmental Stewardship Awards were presented to the Custodial Supervisors group: (from left) Martha Bryant, Phil Baker, Carl Booker, and Debbie Doyle, for their commitment to environmental stewardship and employee safety through continuous efforts to reduce chemical inventories in custodial operations and to utilize green products to replace the current inventories of more hazardous chemical cleaners.



George Goode presents an Environmental Stewardship Award to Ann Emrick, Biology Department, for her outstanding and long-term commitment to environmental protection and environmental management. Emrick was recognized for finding ways to improve the environment and save money, while supporting and enabling science.

Honoring Flag Day, 6/13

Flag Day, a date set aside by an act of Congress to honor the birth of a precious national symbol of the U.S., falls annually on June 14. The flag may be flown daily or on holidays. One portion of flag etiquette states: "When a flag is so worn that it is no longer fit to serve as a symbol of our country, it should be destroyed in a dignified manner."

In honor of Flag Day, the Brookhaven Veterans Association (BVA) will collect American Flags that are too worn. If

you have a flag that falls into this category, bring it to Berkner Hall on Friday, June 13, 11 a.m. - 1 p.m. It will be collected for proper disposal.

The BVA, a BERA organization, is dedicated to serving the interests of BNL Veterans and employees who are faced with the challenges of their loved ones currently serving in the military, and to their communities. For more information, go to: www.bnl.gov/bera/activities/va/default.asp.

CIGNA Representative Is Ready to Help

A CIGNA Healthcare representative is available in Human Resources, Bldg. 400, or by phone, to assist with claims you have been unable to resolve yourself through CIGNA's Customer Service number (1-800-CIGNA24). Mary Beth Kivlen will be available by appointment only. You will need to provide all pertinent documentation. To schedule, call the Benefits Office, Ext. 5126.

Science Summer Camp

BNL employees may register their children or grandchildren for the free 2007 Summer Science Explorations Program, offered by the Lab's Science Learning Center in the Office of Educational Programs. The three-day summer camp will be held Tuesday-Thursday, 8:30-11:30 a.m., for students entering 4th - 6th grades. The weeks of July 22 and August 5 are reserved for children of the BNL community.

The camp's focus is energy. Students will experiment with and learn about chemical, mechanical, electrical, and alternative energy. The environmental day will highlight radio telemetry and how BNL scientists use this technology to locate and track different animal species on site. Students will use GPS units and learn how useful GPS is to scientists.

Teaching participants include Lab Science Educators, research staff, and pre-service teacher interns. To register your child or grandchild, contact the SLC office, Ext. 4495, Bldg. 400. Students must attend all three days; parents are welcome.

Join a BERA Trip!

Buy tickets at the BERA Store, Berkner Hall, Bldg. 488, Ext. 3347, weekdays, 9 a.m.-3 p.m. Trips leave from the Brookhaven Center.

- **Young Frankenstein** on Broadway, Hilton Theatre, 213 West 42nd St., 3 p.m., Sun., 6/29. \$145/person. 40 orchestra seats available. Bus leaves BNL 10 a.m., leaves city about 5:30 p.m. Recommended for 10 years & older.
- **Circle Line Cruise** of New York City, plus "Do-As-You-Please" time in NYC, Sun., 7/13. Bus leaves BNL at 9 a.m., leaves NYC at 5:30 p.m. Two-hour cruise begins 11:30 a.m.,

\$28/person, 55 tickets available. Sail down the Hudson, around the Battery, up the East River, and under the Brooklyn, Manhattan and Williamsburg Bridges to the United Nations and back. Then, free time.

- **Atlantic City**, Sat., 7/26. Boardwalk casino. Leave BNL 9 a.m., leave city 8 p.m. Adults only, 18 and over. \$25/person. 53 seats.
- **Wildwater Kingdom, Dorney Park, PA.** Fri., 8/1. \$35/adult or child. Leave BNL 7 a.m., leave PA 6 p.m. 55 seats.
- **Boston — overnight trip.** Sightseeing tour of Boston, Sat. & Sun., 8/9 & 10. \$280/person double, \$255/person triple, \$230/person

quadruple. Includes Port Jeff ferry, coach, Duck Boat tour, lodging at 1927 Boston Park Plaza Hotel, lunch at Vinnie T's, breakfast at hotel, all-day City View Trolley ticket. Non-refundable \$50/person deposit due immediately, all payment by 7/11.

- **Renaissance Faire**, Sterling Forrest, Tuxedo, NY, Sat., 8/23. \$20/person for coach, entrance. Leave Lab 9 a.m., leave Faire 5 p.m.
- **US Open**, Tues., 9/2, (not a Lab holiday). \$58/person for ticket & coach. Leave BNL 8:30 a.m., leave stadium 7:30 p.m. Section 311 & 312, upper promenade level.
- **New York City Dinner Cruise** — To be rescheduled.

CALENDAR

— THIS WEEKEND —

Friday, 6/6

Plant Swap

Noon. Berkner Hall parking lot. Bring spare plants to swap.

Saturday, 6/7

Benefit Cultural Concert

7-9 p.m. Berkner Hall. International music and dance by BNLers, community groups, local students, to raise funds for cyclone and earthquake victims. Open to public. Visitors to the Lab of 16 and over must carry photo ID. \$12/person, \$30/family in advance at BERA Store; \$15 and \$37 at the door. See p. 4.

— WEEK OF 6/9 —

Monday, 6/9

*BSA Distinguished Lecture

4 p.m. Berkner Hall. Albert-Laszlo Barabasi, Northeastern University will talk on "Network Science: From the Web to human diseases." All are welcome to this free lecture, open to the public. Visitors to the Lab of 16 and older must carry a photo ID. See p. 1.

Thursday, 6/12

*Benefit International Lunch

Noon-1:30 p.m. First 80 people will taste, eat, international dishes from BNLers and local restaurants. \$15/person, all proceeds to go to BNL's fund for cyclone and earthquake victims, to be matched by BSA up to \$25,000. See p. 4.

— WEEK OF 6/16 —

Tues. & Wed., 6/17 & 18

*Blood Drive

9:30 a.m.-3 p.m. B'haven Center. Donors must be from 16 to 75 years of age, in good health, and weighing over 110 lbs. Restrictions may apply to individuals from the United Kingdom and Europe. Donors should have photo identification and know their social security number. To make an appointment, log on to the Human Resources webpage, click on "Blood Drive" and select "Schedule an Appointment." Or, contact Liz Gilbert, Ext. 2315. See story, p. 4.

— WEEK OF 6/23 —

Wednesday, 6/25

BSA Noon Recital: Pianofest

Noon. Berkner Hall. Participants in Pianofest, a summer workshop held in the Hamptons, will showcase a recital, sponsored by Brookhaven Science Associates, the company that manages the Lab. The concert is free and open to the public. All visitors to the Lab age 16 and over must bring a photo I.D. For more information on Pianofest go to: www.pianofest.com/

437th Brookhaven Lecture

4 p.m. Berkner Hall. Michael Rosenthal, Ph.D., Nonproliferation & National Security Department, will talk on "Strengthening International Atomic Energy Agency Safeguards: Challenges Ahead." All are welcome to this free lecture, open to the public. All visitors to the Lab age 16 and over must bring a photo I.D.

Arrivals & Departures

— Arrivals —

- Ashima BagariaBiology
- Laura Barrio Pliego.....Chemistry
- Kieran Boyle Physics
- Nora Detweiler.....CEGPA
- Rolf LageraenFiscal
- Chuan Miao.....Physics
- Paul MoskalDpty. Dir. Ops
- Qun ShenNSLS-II
- Jonathan Skone.....Chemistry
- Marie Thomas.....Chemistry

— Departures —

- Barbara Blenn.....CEGPA
- George Dioguardo.....PPM
- Jeonghoon Lee.....Env. Sci.
- Joan Smith.....ITD

