

General Frank Libutti of DHS Visits Brookhaven Lab



(From left) Joseph Indusi, BNL, explains the capabilities of the BNL-developed Raman Mini-LIDAR Chemical Sensor to Frank Libutti, Department of Homeland Security (DHS); Peter Bond, BNL; Elaine Lowenstein, BNL; and Brendan Shields, DHS.

On May 25, General Frank Libutti, Under Secretary for Information Analysis & Infrastructure Protection in the Department of Homeland Security (DHS), came to BNL for an overview of the Lab's homeland security capabilities. Welcomed by Praveen Chaudhari, BNL Director; Peter Bond, Special Assistant to the Director; and Michael Holland, DOE Brookhaven Site Office Manager; Libutti and his special assistant Brendan Shields toured facilities and met with several scientists over lunch.

During a visit to the Radiation Detector Testing & Evaluation Center, Carl Czajkowski, who heads the Lab's Detector Development & Testing Division in the Nonproliferation & National Security (NNS) Department, discussed the results of BNL's testing and evaluation of both commercial, off-the-shelf and second generation, national-laboratory-developed, radiation detectors for homeland security applications.

The party also toured the Instrumentation Division, where the visitors learned about BNL's advanced neutron and gamma-ray detectors. Joseph Indusi, NNS Chair in the Energy, Environment & National Security Directorate, explained the standoff detection capabilities for chemical spills or releases that are made possible by the Raman Mini-LIDAR system developed by Arthur Sedlacek, Department of Environmental Sciences, and Mark Ray, formerly of BNL. Libutti also talked with Brookhaven Homeland Security Fellow Thomas Graham, NNS, about the need for a study to integrate the capabilities of DHS and other agencies in response to a radiological or nuclear event in New York City.

— Liz Seubert

Rats Genetically Predisposed to 'Alcoholism' Drink Less In Response to Gene Therapy

Finding confirms earlier result using better model for human alcohol abuse, improves understanding of alcohol addiction

As a follow-up to previous work showing that gene therapy can reduce drinking in rats trained to prefer alcohol, scientists at BNL have used the same technique to cut drinking in rats with a genetic predisposition for heavy alcohol consumption. The findings, along with additional results on the effects of long-term ethanol consumption on certain aspects of brain chemistry, are published in the May 2004 issue of *Alcoholism Clinical and Experimental Research*.

"Though we are still early in the process, these results improve our understanding of the mechanism or mechanisms of alcohol addiction and strengthen our hope that this treatment approach might one day help people addicted to alcohol," said Panayotis (Peter) Thanos, who led the study in the Medical Department. Other researchers on Thanos's team are: Seth Rivera, Joanna Fowler, John Gatley, Gene-Jack Wang, all of Medical except Fowler, Chemistry Department, and Nora Volkow, now at the National Institute of Drug Abuse.

The research is funded by the Office of Biological and Environmental Re-

search within DOE's Office of Science and also by the National Institute of Alcohol Abuse and Alcoholism within the National Institutes of Health.

Thanos explained that genetically predisposed alcohol-preferring rats are a much better model for human alcoholism than the rats used previously, which the scientists had to train to prefer alcohol. Without any training, the genetic alcohol-preferring rats drink, on average, more than five grams of ethanol per kilogram of body weight per day when given a free choice between alcohol and plain water. Genetically non-preferring rats, in contrast, typically consume less than one gram of ethanol per kilogram of body weight per day.

In this study, both groups were treated with gene transfer to increase the level of a brain receptor for dopamine, a chemical important for transmitting feelings of pleasure and reward and known to play a role in addiction. After the gene treatment, the alcohol-preferring rats exhibited a 37 percent reduction in their preference for alcohol and cut their

(continued on page 2)



Peter Thanos

Joseph Rubino CN9-151-01

2004 NSLS Users' Meeting Caps Off Successful Year



Among the speakers at the Annual NSLS Users' Meeting are: (front, from left) Pedro Montano, DOE; Steven Dierker, BNL; and Lois Pollack, Cornell University; (back, from left) Bob Casey, BNL; Mark Croft, Rutgers University; John Hill, BNL; Simon Billinge, Michigan State University; and Chris Jacobsen, Stony Brook University. Other speakers included: (see below, from left) Praveen Chaudhari, BNL; Larry Shapiro, Columbia University; Yvonne Akpalu, Rensselaer Polytechnic Institute; and Robert Hwang, BNL.



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D210050



D152050

Almost 400 participants at the 2004 ANSLs Annual Users' Meeting, held on May 17-20, came together for a successful event full of interesting talks and important messages for the future. The meeting affirmed that the NSLS continues to be a facility that produces important science.

In his welcoming remarks at the main meeting on May 18, the new Users' Executive Committee (UEC) Chair, Larry Shapiro of Columbia University, discussed the continuing excellence of NSLS research, such as the cellular ion channel structure determined by user Roderick MacKinnon, which earned him the 2003 Nobel Prize in Chemistry.

Steve Dierker, NSLS Chair and Associate Laboratory Director for Light Sources, described other research highlights – a cellular protein channel structure, featured on the cover of *Nature* in January 2004; a new liquid crystal phase in polar-ordered materials, featured on the cover of *Science* in August 2003; a new material texture type, appearing in *Nature* in December 2003; and a new way to store hydrogen in molecular compounds, published January 2004 in the *Proceedings of the National Academy of Sciences*.

"These give you a flavor of the diversity and quality of science that continues at this facility," he said. "The NSLS has a well-deserved reputation for outstanding productivity."

The main meeting's scientific talks focused on user research from a more in-depth perspective. Chris Jacobsen of Stony Brook University (SBU) gave an overview of the many x-ray and infrared imaging techniques available to NSLS users. Mark Croft, from Rutgers University, described his research on strain fields in macroscopic materials.

Simon Billinge of Michigan State University presented his work on the structures of complex materials that display order on the nanoscale. John Hill of BNL's Physics Department discussed how he uses soft x-ray scattering to probe the behavior of electrons in solids.

Another speaker, Cornell University's Lois Pollack, described an apparatus

designed by her research group, which allows the group to observe how an RNA chain molecule folds. Following this, Yvonne Akpalu of Rensselaer Polytechnic Institute presented her work, an investigation of how to solve the crystal structure of a copolymer.

On the days before and after the main meeting, users divided up to listen to additional talks on specific topics: "Better Ways to See the Light: Advanced Detectors for Synchrotron Radiation," "Anatomy of a Virus," "Grazing Incidence Small Angle Scattering," "Pharmaceutical Applications of Synchrotron Radiation," "Advanced Optical Systems and Metrology for High Power and Coherent Beam Lines," "Applications of Synchrotron Based Methods to Hydrogen Storage Materials," "Nanoprobes for Nanoscience," and "Crystallization, Membrane Proteins."

Now and Ahead

In a message very familiar to users, Dierker stressed that the NSLS is now performing at the limits of its capabilities. Pedro Montano, Manager of the X-ray & Neutron Scattering Facilities Program within the DOE Office of Basic Energy Sciences, acknowledged this in his talk, referring to the NSLS as the "working horse" of the DOE light sources.

Dierker and Montano repeated the need and excitement for NSLS-II, the proposed third-generation light source that would upgrade the NSLS. Currently, Montano said, an international panel of scientists is reviewing the proposal – the first step in the process. He urged the prospective users of NSLS-II to contact their representatives in Congress and tell them how vital the facility is.

"I think NSLS-II is necessary," Montano said. "A huge number of scientists in the Northeast would benefit from it."

BNL and the NSLS

In his "CFN Update" talk, Robert Hwang, Director of BNL's Center for Functional Nanomaterials (CFN), discussed how the CFN will be "an

(continued on page 2)

Calendar of Laboratory Events

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

— EACH WEEK —

Weekdays: Free English for Speakers of Other Languages Classes

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

Mondays: BNL Gospel Choir

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

Mon., Tues., & Thurs.: Kickboxing

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

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

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

Tuesdays: Welcome Coffee

10-11:30 a.m., Apartment area gazebo/playground. The first Tuesday of every month is special for Lab newcomers and leaving guests. Monique de la Beij, 399-7656.

Tuesdays: BNL Music Club

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

Tuesdays: Jiu Jitsu Club

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

Tuesdays: Toastmasters

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

Tues. & Thurs: Upton Nursery School

The school is on summer break. Contact Alison Tipl, Ext. 4465, or tilp@bnl.gov, for information on Sept. enrollment.

Wednesdays: On-Site Play Group

10 a.m.-noon. Apartment area gazebo/playground. An infant/toddler drop-in event. Parents meet while children play. Kati Petreczky, 821-4131.

Wednesdays: Farmer's Market

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

Wednesdays: Weight Watchers

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

Wednesdays: Yoga Practice

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

Wednesdays: Open Chess Night

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

Thursdays: Reiki Healing Class

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

Thursdays: FreshDirect Delivery

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

Fridays: Family Swim Night

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

Fridays: BNL Social & Cultural Club

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

— THIS WEEKEND —

Saturday, 6/26

*Early Fourth of July BBQ

6 p.m. at the gazebo located in the apartment area. The Hospitality Committee invites BNLers to an early Fourth of July BBQ. Participants are asked to bring a salad or side dish to share with six persons. Burgers, hot dogs, veggie burgers, buns, and beverages will be provided. There will be games for the children. Monique de la Beij, 399-7656.

WEEK OF 6/28

Monday, 6/28

IBEW Meeting

6 p.m. Centereach Knights of Columbus Hall, 41, Horseblock Road, 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.

*Homeland Security

4-4:30 p.m. Hamilton Seminar Room, Bldg. 555, Chemistry Department. Talk by Maureen McCarthy, Director, Office of Research & Development Science & Technology Directorate in the Department of Homeland Security, on "Homeland Security: Science, Technology & Stewardship in Service to the Nation." All are welcome.

Gene Therapy for Alcoholic Rats

(cont'd.)



Peter Thanos

total alcohol consumption in half. Non-preferring rats also reduced their drinking preference and intake after gene treatment, but not in nearly as dramatic a fashion. The greatest reductions in alcohol preference and consumption were observed within the first few days after gene treatment, and both preference and consumption returned to pre-treatment levels by day 20.

The gene administered was for the dopamine D2 receptor, a protein shown in various studies to be relevant to alcohol and drug abuse. Compared to the non-preferring rats, the alcohol-preferring rats used in this study have about 20 to 25 percent lower levels of dopamine D2 receptors, which may, in part, explain their tendency toward heavy drinking.

In future studies, the D2 con-

nection to alcoholism will be examined in transgenic mice that are totally depleted of D2. In addition, the scientists plan to develop a second generation approach that will provide a longer period of treatment.

"These findings further support our hypothesis that high levels of D2 could be a factor associated with reduced alcohol drinking and may serve as a protective factor against alcoholism," Thanos said.

— Karen McNulty Walsh

More information on this research, including a photo illustrating brain scans showing fewer dopamine receptors (less red) in the nucleus accumbens, or "pleasure center," of alcohol-preferring (P) rats compared to nonpreferring (NP) rats, is available at www.bnl.gov/bnlweb/pubaf/pr/2004/bnlpr050504a.htm.

NSLS Annual Users' Meeting

(cont'd.)

interdisciplinary environment for nanoscience research," performed in conjunction with several BNL departments, including the current NSLS, and, later, NSLS-II. In this way, the research the CFN will enable promises to be very exciting. "The Northeast is becoming a hotbed for nanoscience," said Dierker. "Brookhaven is becoming a focal point for much of that research."

In his talk, Lab Director Praveen Chaudhari discussed his vision for BNL for the next 20 years. He said NSLS-II plays a significant part in his desire to see more integration between departments.

"In a research lab, departmentalizing can be a hindrance," he said. "To reach the frontiers in the life, physical, and environmental sciences, we need to find the major challenges at these interfaces between disciplines, and begin to address them."

Another Lab-wide initiative — safety — was discussed by

Bob Casey, the NSLS Associate Chair for Environment, Health, Safety, & Quality. While the NSLS safety record hovers around the DOE average, "We're being asked to really improve," Casey said. "We want to be best in class."

Honorable Mentions

Outgoing UEC Chair Tony Lanzirotti presented the UEC Community Service Award to SBU's Sue Wirick. The poster session winners were Dario Arena and Mehmet Aslantas, both of BNL's NSLS; Alexei Grigoriev, Harvard University; Marianna Kissel and Meghan Ruppel, both of SBU; and Xianqin Wang of BNL's Chemistry Department.

At the evening banquet, reggae-themed this year, Shapiro presented the meeting's organizers — Mary Anne Corwin, Liz Flynn, Gretchen Cisco, and Melissa Abramowitz — with framed letters of appreciation. — Laura Mgrdichian



Poster session winners are: (from left) Dario Arena of BNL's National Synchrotron Light Source Department (NSLS), Xianqin Wang of BNL's Chemistry Department, Marianna Kissel of Stony Brook University (SBU), Mehmet Aslantas of the NSLS, and Alexei Grigoriev of Harvard University. Not pictured is Meghan Ruppel of SBU.

Plant Engineering Uses New Technique to Remove Paint

Process gives more protection to workers and the environment and is also cost-effective.

Members of the Lab's Plant Engineering Division (PE) are always looking for innovative ways to protect workers and the environment, and they recently discovered a new paint remover that is healthier to use, more environmentally friendly, and less costly than conventional methods.

It all began when Peter Stelmaschuk, PE, read an article on 510RemovALL, a new product developed by Napier Environmental Technologies, Inc., which was featured in the February 2004 issue of *Leading Edge* magazine. The product is currently being used in industry to remove paint on airplanes, submarines, and trains.

Stelmaschuk and Michael Wooley, also of PE, decided to investigate whether BNL could use 510RemovALL for paint removal projects on site. Their research showed that the product met BNL standards, and the decision was made to purchase the water-based product from Pittsburgh Paint Group, a 510RemovALL distributor.

An on-site recycled tank was used to test the product. The process is simple: Apply 510-RemovALL with a fine mist sprayer and six hours later, remove the product with a home-type power washer. The paint separates from the base metal object — in this case, a recycled tank — and comes off in large, wet sheets ready for easy disposal.

Typically, standard paint-

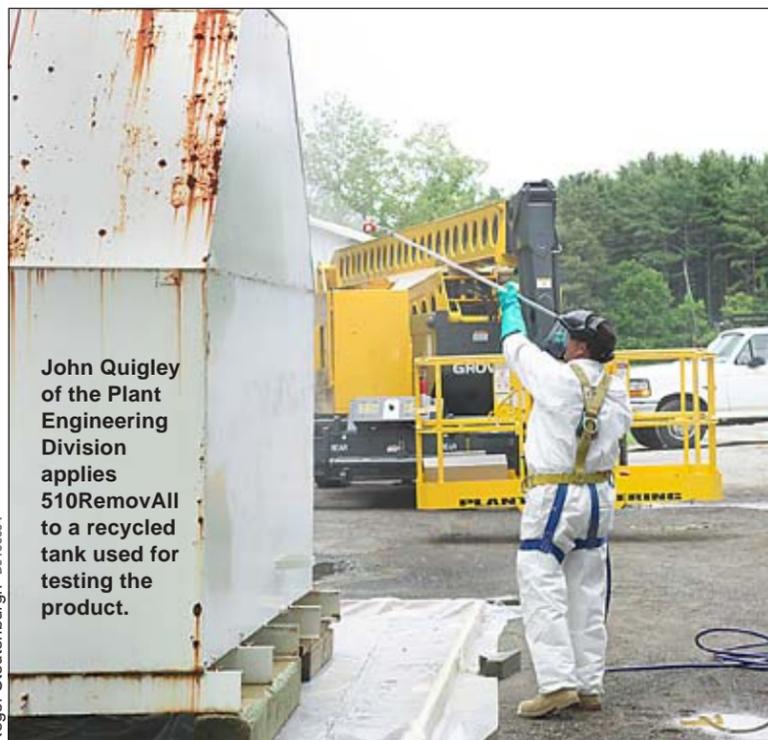
remover and paint-thinner products create hazardous waste and may expose workers to harmful materials, but the 510RemovALL process is environmentally friendly and reduces the amount of exposure to workers. PE personnel are working closely with Peter Pohlot of the Environmental Services Division and Gary Olsen of the Waste Management Division to ensure that the removed paint is disposed of properly.

Says Stelmaschuk, "I think this product will be very useful to BNL. Our plan is to use 510-RemovALL on the tanks near Building 1005. Previous measures required us to place a tent around the work area and remove paint by sandblasting or hand-sanding. With 510RemovALL, we no longer need to do that."

Bruce Laakmann of PE's Cabinet and Paint Shop will oversee most of the Lab's paint-removal projects. He says, "This is another example of BNL personnel across departments partnering to implement new methods that help us all streamline our work production in a safe manner."

By using the 510RemovAll, the estimated cost of removing paint from the tanks located near Building 1005 will be decreased by at least 75 percent.

"It's a win-win process: less worker exposure, and an environmentally friendly process that is also cost-effective," said Stelmaschuk. — Jane Koropsak



John Quigley of the Plant Engineering Division applies 510RemovAll to a recycled tank used for testing the product.



Several hours later, Joanne McNaught, Plant Engineering Division, removes the 510RemovAll product and the paint with a home-type power washer.

Calendar

(continued)

— WEEK OF 7/5 —

Monday, Tuesday, 7/5 & 6

Lab Holidays, 7/5 & 6

The Lab will be closed on Monday and Tuesday in observance of the July 4 holiday. No Bulletin will appear on Friday, 7/9.

Wednesday, 7/7

*BSA Noon Recital: Pianofest, Part 1

Noon, Berkner Hall. In this, the sixteenth year of Pianofest, the summer workshop in the Hamptons, its director, Paul Schenly, will bring a number of outstanding young pianists to the Berkner Hall stage to demonstrate their talents. Noon recitals are free and open to the public. All visitors to the Lab of 16 and over must bring a photo ID.

Sunday, 7/11

*Start of Summer Sunday Tours

10 a.m.-3 p.m. Sundays, 7/11 through 8/22. All are welcome to visit the Lab, see the updated Whiz-Bang Science Show and the new "Light & Color exhibit, and tour the featured facility of the day. This week, visitors can learn about BNL's Homeland Security technologies, visit the Instrumentation Division and see how printed circuits are fabricated. Special guest John Lienhard, radio host, will talk on "The savage Boy Inventor: How We Reinvented Childhood in the Early Twentieth Century," at 1:30 p.m. in Berkner Hall. See page 4 also.

*Hospitality Bus Trip to NYC

\$10 per adult, \$5 per child of age 2 to 12. Bus departs from the Recreation Hall at 9 a.m., and returns at about 7:30 p.m. To make reservations, contact Hanna Herman, 849-2249, or haniaherman@yahoo.com. Payments can be made on Tuesday, June 29, and Wednesday, July 7, from 10:30-11:30 a.m. in the Rec. Bldg.

— WEEK OF 7/12 —

Monday, July 12

*BSA Distinguished Lecture

Noon, Berkner Hall. Public Radio Host John Lienhard will talk on "Eye of the Forehead and Eye of the Mind: How Engineers and Scientists See." This free lecture is open to the public. All visitors age 16 and over must bring a photo ID.

Wednesday, 7/14

Cingular Wireless Demo

11 a.m.-2 p.m., Berkner Hall. Representatives from Cingular Wireless will present BNLers with special rates on cellular phones and calling plans. Brian, 361-6800.

*BSA Noon Recital: Pianofest, Part 2

Noon, Berkner Hall. In this, the sixteenth year of Pianofest, the summer workshop in the Hamptons, its director, Paul Schenly, will bring a number of outstanding young pianists to the Berkner Hall stage to demonstrate their talents. Noon recitals are free and open to the public. All visitors to the Lab of 16 and over must bring a photo ID.

Sunday, 7/18

Summer Sunday Tour of BNL

10 a.m.-3 p.m. Summer Sunday tour. This week features BNL's research in the Life Sciences, including how scientists study the brain to understand addiction. See page 4.

— WEEK OF 7/19 —

Tuesday, 7/20

*Talk on Eating Disorders

Noon-1 p.m., Berkner Hall, Room C. Join Mather Hospital's Kathleen Jochen for a talk and videotape presentation on "Real Talk About Real People With Eating Disorders." Participants will learn about anorexia, bulimia, binge eating disorders, and Mather Hospital's Eating Disorders Program. Pre-registration is required for this free talk. Check your mailbox for registration forms. For more information, contact Linda DiPierro, Ext. 2733.

Note: This calendar is updated continuously and will appear in the Bulletin whenever space permits. Submissions must be received by the preceding Friday at noon to appear in the following week's Bulletin. Enter information for each event in the order listed above (date, event name, description, and cost) and send it to bulletin@bnl.gov. Write "Bulletin Calendar" in the subject line.

Five Students Win 2004 Science/Math Awards From Battelle, Brookhaven Women in Science



Roger Stoulenburgh D0230504

Five local female high school students who excel in science and/or mathematics were each awarded \$1,000 at a ceremony at BNL to encourage them to pursue careers in those fields. The annual award was established in 1999 by Battelle, a nonprofit, applied science and technology organization based in Ohio, that partners with Stony Brook University to manage BNL through Brookhaven Science Associates, and by Brookhaven Women in Science (BWIS), a not-for-profit

group at the Lab whose aim is to promote the advancement of women.

The students are (starting second from left) Joan Burger, Longwood High School; Xiao Li Lin, Eastport/South Manor High School; Erica Lukoski, Shoreham-Wading River High School; Samantha Rhind, William Floyd High School; and Kristen Smith, Riverhead High School. BWIS trustee Pam Mansfield (left) and BWIS coordinator Kathy Hauser accompany the winners.

Coming Up Monday, June 28 'Homeland Security: Science, Technology & Stewardship In Service to the Nation'

This seminar by Maureen McCarthy, Director, Office of Research & Development, Science & Technology Directorate in the Department of Homeland Security, will be given 4-4:30 p.m. in the Hamilton Seminar Room of the Chemistry Department, Bldg. 555. All are welcome to this free event. Visitors age 16 or over must bring a photo ID.

Monday, July 12

BSA

Distinguished Lecture

Talk by Public Radio Host John Lienhard

John Lienhard, public radio host, will give a talk titled "Eye of the Forehead and Eye of the Mind: How Engineers and Scientists See," in Berkner Hall at noon on Monday, July 12. The free lecture is open to the public. Visitors age 16 and over must bring a photo ID.

Arrivals & Departures

Arrivals

Scott Bronson CEGPA
Lorraine Davis CFN

Departures

Sadayuki Asaoka Chemistry
Philip Beuparant PPM
Linda Chang Medical
Thomas Ernst Medical
Keith Grigoletto CEGPA
Robert Schnoor Plant Engr.

Service Anniversaries

The following employees celebrated BNL service anniversaries during May 2004.

30 Years

William Fritz C-A
John Gannon Instrumentation

25 Years

Nicholas Franco C-A
Stephanie Lamontagne C-A
Jean Petterson Chemistry
Peter Boyle Plant Eng.
Charles Spataro Magnet
Slobodan Pjerov NSLS
Victor Cassella Plant Eng.
Timothy Freeman ITD
Steven Bennett NSLS
Paul Larsen Emerg. Svcs.
Steven Schroder PPM

20 Years

Joyce Vail HR&OM
Kevin Hester P&GA
Cyril Pinto Emerg. Svcs.

10 Years

Regalado Sanchez Staff Svcs.
Robert Schnoor Plant Eng.
Gail Brown ES&T
Anthony Palmore Plant Eng.
Raymond Duffield, Jr. BSD
Scott Smith Env. Sci.
Glenn Abramowitz Plant Eng.
Dean Atchison ERD
Anna Bou Env. Svcs.
Shelby Bowers Rad. Ctrl.
Charles Brown Plant Eng.
Linda De Masi Biology

Call For Bowlers

Bowlers are needed for the Thursday night mixed league in Shirley, which begins on Thursday, September 9, at 6:30 p.m. All interested BNLers, ages 18 and over, are eligible to participate. For more information, contact Debbie Reynolds, Ext. 5340, dreynolds@bnl.gov.

Recital

Noon Piano Recitals 7/7, 7/14

Two BSA noon recitals are coming up on the Wednesdays of July 7 and 14. Three young pianists who are being featured in the annual "Pianofest in the Hamptons" musical celebration will perform at each event, with introductions being made by faculty director Paul Schenly.

In Memoriam

Martin Howard, a guest senior mechanical designer at the Lab from October 1984 to 85 who had then joined the Physics Department as a design engineer on October 21, 1985, and had retired on September 30, 1994, died at the age of 77 on January 22, 2003.

Salvatore Galati, who had become an accountant in the Fiscal Office on September 1, 1969, and had retired as a senior accountant on April 30, 1988, died on February 23, 2004. He was 79.

William Wyche, who had joined the Lab on March 21, 1960, as a painter in the Plant Engineering Division, died on April 6, 2004. He was 87. He had retired as a painter A on December 31, 1984.

Nikolais Upenieks, who had joined the Physics Department as a senior technician on October 10, 1960, and had retired from the Alternating Gradient Synchrotron Department as a senior technical specialist on May 31, 1981, died on May 8, 2004, at age 87. He had returned to the Lab as a guest mechanical technician from November 1, 1982 to May 31, 1984.

The Producers, 7/10

The BERA Store has tickets available for the BERA-sponsored bus trip to see *The Producers* in the St. James Theatre in New York City on Saturday, July 10. Tickets cost \$110 per person and include luxury coach bus transportation and orchestra seats. The bus departs the Brookhaven Center at 10:30 a.m. and leaves the city at 6:30 p.m. For more information, contact Christine Carter, Ext. 5090.

Bus to NYC, 7/11

Join the BNL Hospitality Committee bus trip to New York City on Sunday, July 11, \$10 per adult, \$5 per child of age 2 to 12, departing from the Recreation Hall in the apartment area at 9 a.m. and returning at about 7:30 p.m.

To make reservations, contact Hanna Herman, 849-2249, or haniaherman@yahoo.com. Payments can be made on Tuesday, June 29, and Wednesday, July 7, 10:30-11:30 a.m. in the Recreation Hall.

Hospitality BBQ, 6/26

The Hospitality Committee invites the Lab community, family and friends to an early Fourth of July BBQ on Saturday, June 26, at 6 p.m. at the gazebo in the apartment area. Participants are asked to bring a salad or side dish to share with six people. Burgers, hot dogs, veggie burgers, buns, and beverages will be provided. For decoration, the Hospitality Committee asks that attendees bring a paper flag from your own native country. There will be games for the children. For information, call Hospitality Chair Monique de la Beij, 399-7656.

Eating Disorders Talk, 7/20

Join Mather Hospital's Kathleen Jochen on Tuesday, July 20, from noon to 1 p.m. in Berkner Hall, Room C, where she will give the talk and videotape presentation "Real Talk About Real People With Eating Disorders." Participants will learn about anorexia, bulimia, binge eating disorders, and Mather Hospital's Eating Disorders Program.

Pre-registration is required for this free talk. Check your mailbox for registration forms. For more information, contact Linda DiPierro, Ext. 2733.

Enterprise-Rent-a-Car Here On Site at BNL

Need to rent a car for a week-end, a day, or half a day? Enterprise-Rent-a-Car, right on site at BNL, may have what you need.

For example, cars are available for part of a day, 11 a.m.-4 p.m., or 4 p.m.-9 a.m. the next day. The partial-day rate for compact cars is \$35; for mid-size, \$40, and for full-size, \$45. Three-day weekend special rates are now available: \$19.99 a day, Friday-Sunday, for intermediate or smaller cars, for a total of \$57.97 with 450 free miles included. It's easy to find out for yourself: call Ext. 4888/4889, Monday-Friday, 9 a.m.-1 p.m. and 3-5 p.m. Or, stop in at Bldg. 355, 50 Brookhaven Avenue, or see www.enterprise.com.

Safety Glass Office

The Safety Glass Office will be closed on Wednesday, June 30, and Wednesday, July 7, and will reopen on Wednesday, July 14. For more information, call Deborah Botts, Ext. 3888.

Summer Sunday Tour Time!

Sundays, July 11 — August 22

It's coming up to be Summer Sunday tours time, and different tours of BNL facilities will be held each Sunday from July 11 through August 22.

This year will feature several new exhibits, an updated science show, a special guest on the first tour day, and an inside look at the Lab's world-class facilities, such as the National Synchrotron Light Source (NSLS) and the Relativistic Heavy Ion Collider.

Tours are free and no reservations are needed. Visitors may arrive any time between 10 a.m. and 3 p.m. All visitors age 16 and over must bring a photo ID.

What's New?

A new hands-on "Light & Color" exhibit, produced by the Oregon Museum of Science & Industry, will allow visitors to view life-like holograms, split white light into a rainbow of colors, and discover the physics involved in light refraction and fluorescence. Another new exhibit will feature the 2003 Nobel Prize in Chemistry, won, in part, because of research done at BNL's NSLS. Also, local high school students will demonstrate robots they had built for a national competition.

The magic of science is always a draw, and both adults and children will enjoy the "Whiz Bang Science Show." Featuring some new segments and special effects this year, the educational and entertaining show will be staged at 10:30 a.m., noon, 1:30 p.m. and 3 p.m. every Sunday during the summer program except at 1:30 p.m. on July 11, when special guest speaker John Lienhard will be featured. In addition, the Camp Upton Historical Collection, which contains photos and memorabilia from World Wars I and II, will be on display.



Tour Schedule

July 11 — Homeland Security

See and learn about the Lab's innovative technology in this area. Also, visit the Instrumentation Division and see how printed circuits are fabricated and manufactured. Special guest John Lienhard, radio host of "Engines of Our Ingenuity," will give a talk titled "The Savage Boy Inventor: How We Reinvented Childhood in the Early Twentieth Century" at 1:30 p.m.

July 18 — Life Sciences

Explore the fascinating world of biological and medical science. Discover how today's research at BNL may lead to tomorrow's cures for common illnesses. Learn how scientists study the brain to understand addiction.

July 25 — Family Fun Day

Join in fun-filled demonstrations at BNL's Science Museum and meet guest partners from the Long Island Sciencenter, New York Hall of Science, Cradle of Aviation Museum, and the Goudreau Math Museum.

August 1 — National Synchrotron Light Source

Discover how researchers, including the winner of the 2003 Nobel Prize in Chemistry, use infrared, ultraviolet and x-ray light to study materials as diverse as viruses, moon rocks, and computer chips.

August 8 — National Weather Service

Learn about weather, what creates it, and how to be prepared for it. See a weather balloon launch at 3:30 p.m.

August 15 — Fire, Security, Emergency Services

Explore fire engines, emergency response equipment, and construction vehicles. Learn about safety both at the Lab and in your home. Enjoy a fun-filled day with activities for all ages.

August 22 — Relativistic Heavy Ion Collider

Learn how scientists use the world's largest accelerator for nuclear physics to look for matter that has not existed since the first millionth of a second after the Big Bang. Detectors that are three stories tall search for the tiniest building blocks of the universe at BNL's newest accelerator.

For more information, call (631) 344-2651.

Summer Science Explorations Science Camp for Elementary School Students

All BNLeers are invited to register their children in BNL's Summer Science Explorations Program, which is a free offering from the Lab's Science Museum. Students who are entering the 4th, 5th, and 6th grades will have the opportunity to have a hands-on environmental field experience and spend two days investigating the planet Mars using the Museum's new Mars exhibit.

The three-day summer camp will be held from Tuesday through Thursday, from 8:30 to 11:30 a.m. The Science Museum has reserved the weeks of July 13-15 and August 10-12 for the children of the BNL community. Space is limited, so register your child/grandchild early. Children must attend all three days, and the parents of participating children are also welcome. To register, or for more information, contact the Science Museum Program Office, Ext. 4495.

WHEELS - 4 aluminum 16" wheels for Toyota. Louie, Ext. 4897.

Boats & Marine Supplies

15' VANGUARD SAILBOAT - '98, vgd. cond., galv. trailer, Seitech dolly, deck cover, blade bag, new lines, \$3,700. Marita, Ext. 3060.

14' AMF SUNFISH - Hull & sail in gd. cond., perfect beginner, not a racer, \$225. Richard, 734-7342.

9' DURATEK - alum., flat btm. boat, \$150; 9' sail row motor fibgl. dinghy; sail, mast, boom, daggerbrd, rudder, \$350. Steve, Ext. 4846.

Furnishings & Appliances

BEDROOM SET - 7pc., incl. cedar chest, queen hdbd., Furn-a-Kit assembl., excel. cond., \$265; 5' prple. sofa, \$65. 751-7023.

COUCHES & TABLES - 2-84"L. couches, gd. cond., 3 matching glass tables, \$250. Vicky, 476-0627.

DESK - 4-tier wood corner desk for computer, 4 mos. old. \$75; fax machine, \$15. Richard, Ext. 4134

OIL PAINTING - contemporary, "City Sky Line" shades of blue/pink/blk., gold frame, 4'x5', mint, \$250, will e-mail pics., 924-3049.

SECTIONAL - cloth w/2 recliners, excel. cond., \$300. Devinder, Ext. 4985.

SOFA BED - like new, \$300; dark pine d/r set, \$75; loveseat, \$40.; Zenith 24" TV, \$30. Mary, Ext. 2815 or 472-4087.

TABLE - white Formica top, 63"x31.5", blue base, \$25; student wooden desk, 9 drawers, 48"wx26.6"dx29.5"h, \$35. 289-5770

WASHER/DRYER - Frigidaire, white, heavy duty, all assoc. hoses, \$300/pr.; Paul, Ext. 3194.

Free

DOG - Akita, sprayed female, 4 yrs. old, all shots, beautiful animal in excel. health, needs adult home. 929-4753.

ENTERTAINMENT CENTER - blk., 49"wx72"h, u-pick-up. Christine, Ext. 6253.

WEIGHTS & BENCHES - steel and cement weights, about 250lbs., curl bar & more. Joe, Ext. 5353 or 475-8183.

Audio, Video & Computers

AMPLIFIER - Crown PowerBase One, 240wpc stereo pwr. amp., excel. cond., \$225. Steve, Ext. 2897.

DELL - 1Ghz CPU, 256Mb ram, 20Gb hd, cdrw, 17" mon., Win2K, MS Off., \$300; w/0 mon., \$250. Don. Ext. 7237 or 929-6571.

ASUS - P2B-D mobo, dual P3 550mhz, CPUs, 512Mb ram, AGP video, E/net, sound cards; floppy, more. \$200. Rick, Ext. 3932.

TV/VCR - Panasonic 20" color, remote control, 1 1/2 yrs. old, excel. cond., \$75. Fred, Ext. 5319 or 369-9720.

Miscellaneous

DOLLS, ETC. - Shirley Temples, Mme. Alexanders, Princess Di, Barbies, etc., misc. household items. Linda, Ext. 2733, 395-6784.

UNIQUE PIÑATAS - all occasions & characters, cartoon, Disney, Sesame Street. Donna, 821-0359.

On-Site Service Station

MARINE ELECTRICAL COMPONENTS - now supplied at Upton Industries, Inc., including hard-to-find units, e.g. Volvo Penta, Mando, Mitsubishi, Honda/Coleman marine generators for RV use available. Ext. 4304.

Tools, House & Garden

LAWN MOWER - '03 Craftsman EZ3, gas/elec. start, \$200. Paul, Ext. 3194.

LAWN TRACTOR - Toro Wheel Horse, 15hp, 44" deck w/2sets blades, incl. mulching, runs well, \$850. Joann, Ext. 7459, 929-1981.

LAWN TRACTOR - John Deere 180, 17hp, 38" deck, rear bags, push blade, tire chains & serv. manuals, will deliver. Stan, Ext. 4406.

ROTOTILLER - Troybuilt, 8hp, low hrs., rear tires, 4 speeds, plowblade, \$1,000. Fred, Ext. 3498.

VACUUM - Prolux 1400XP, upright w/ attachments., 1 yr. old, pd. \$469, ask \$275. JoAnn, Ext. 7009.

VARIEGATED HOSTA PLANTS - wholesale from grower. 689-9234.

Sports, Hobbies & Pets

DIRT BIKE - '04 Honda CRF230, 2 mos. old, elec. start, 150 hrs., \$3,500. Cheryl, 325-0706.

CELESTRON TELESCOPE - w/tripod, 9" lens, 8x50 finder, 32" tripod porro prism, 1 1/2" oc. T-adptr., mint, \$1,200. Charles, Ext. 2867.

EXERCISE BIKE - Bionix programmable, heavy duty, blk., 2 yrs. old, pd. \$500, ask \$100. David, 396-3484.

IN-LINE SKATES - CCM Tacks, man's size 9 1/2, new, \$125, ask \$35. Robert, Ext. 4758.

Yard & Garage Sales

BELLPORT - 6/26, 8 a.m.-1 p.m., 100 North Howells Point. Rd.

MILLER PLACE - 6/26, 9 a.m.-5 p.m., huge, 10 Lodge Lane, off Woodland Rd. John, 473-8338.

Wanted

RESEARCH VOLUNTEERS - men and women, ages 18 and over, are needed for PET study. Strictly confidential, fee provided. 344-5015.

RUNNERS - and walkers for the JPMorganChase Corporate Challenge, 7/27, 7 p.m., Jones Beach. For more information, contact James, Ext. 6222, marron@bnl.gov. SHOTGUN - model 870 in 410Ga., Joe, Ext. 3783 or 929-8321.

For Rent

EAST MORICHES - share lg. furn. 2-bdrm. house, own bdrm. w/ac/cable/phone, 300' to beach, 10 mi. to Lab, single, non smkr. 744-8386.

MIDDLE ISLAND - beautiful, 2-bdrm. country home on 2+ acres, lg. deck w/jacuzzi, eik, lg. l/r, new w/d, full bath, pets ok, \$1,800. 924-4258.

PATCHOGUE - 2-3-bdrm., l/r, kit, laundry rm., fenced in yd., \$1,600 + util. Doreen, 654-3743.

RONKONKOMA - 1-bdrm. w/priv. ent, bath, kitchenette w/refrig., toaster oven, cabinets, single occp. only, no smkg/pets, 1 mo. sec. \$650/mo. Nicholas, 588-0180.

SELDEN/CORAM - 1-bdrm. eik, l/r, priv. ent. w/yd., no smkg/pets, \$950/neg/incl. cable & util. + 2 mos. sec. Arthur, 698-7564.

SHIRLEY - 3-bdrm. ranch, priv. area, 1 bath, eik, great rm. w/fp & glass drs. to deck, attach. gar., fenced back yd. up to the Manor of St. Georges, \$1,500/mo. Bob, 281-6551.

ALEXANDRA, NH - on Newfound lake, 2 bdrm., 2 bath, sleeps 6, 50s decor., \$1,000/wk., Ed, Ext. 4188 or 750-3169.

ARUBA - Marriott/share mstr. suite, 2 bdrm. lockoff, q-bed, sofa bd, sleeps 4, kit., lr, dr, fb, \$1,200; Studio, q-bed, sofa bd., sleeps 4, fb wet bar, \$700, wk. 11/5-12. Bob, 467-5853.

FT. LAUDERDALE, FL - Gold Crown Resort, world class golf/fitness ctr., 3 bdrm. lockout unit, sleeps 8, trades for 2 weeks, \$6,500. Ken, 729-3399.

KISSIMMEE FL - 5-bdrm., 4 bath, priv. pool/8 pers. spa, tennis, soccer, playground, 3 mi. to Indian Creek Comm. & Disney, \$875-\$1,225/wk., www.family-vacation-homes.com to view. Carrie, 878-6968.

For Sale

MEDFORD - land, 100x100, \$90,000. Scott, Ext. 3084.

In Appreciation

We sincerely thank everyone for their generosity and expressions of sympathy on the passing of our mother.

—The McNaught Family

SERVICES - BNLeers offer many services: see them on the web at the address below, or call or e-mail for a full printout, see below. If your service used to be on the list and you still want it included, make sure you resubmit it on the form provided on the web, or e-mail it to bulletin@bnl.gov, or send it in by ordinary mail. The list was recently updated and only those who resubmitted their services are on the new list.

Classified Advertisements

Placement Notices

The Lab's placement policy is to select the best-qualified candidate for an available position. Candidates are considered in the following order: (1) present employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present employees within the Laboratory; and (3) outside applicants. In keeping with the Affirmative Action Plan, selections are made without regard to age, race, color, religion, national origin, sex, disability or veteran status. Each week, the Human Resources Division lists new placement notices, first, so employees may request consideration for themselves, and, second, for open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all people. Except when operational needs require otherwise, positions will be open for one week after publication. For more information, contact the Employment Manager, Ext. 2882; call the JOBLINE, Ext. 7744 (344-7744), for a list of all job openings; use a TDD system to access job information by calling (631) 344-6018; or access current job openings on the World Wide Web at www.bnl.gov/HR/jobs/default.htm.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates. MK4162. ASSISTANT CHEMIST (S-1) - Requires a Ph.D. in chemistry, physics, biomedical engineering, or related discipline and have completed at least two years of postdoctoral training with a record of excellence in MRI research. Appropriate fields of study include MR pulse sequence development, spectroscopic research, contrast agent applications and development, physiological and functional

imaging. Will participate in the Brookhaven Center for Translational Neuroimaging (BCTN). The BCNT is a multidisciplinary endeavor with major hardware that includes a whole-body 4 T MRI instrument, a 9.4 T 21 cm horizontal bore MRI instrument, two clinical high-resolution positron emission tomographs (PET) and a micro-PET instrument. Under the direction of W. Rooney, Chemistry Department.

MK3855. ASSISTANT ENVIRONMENTAL SCIENTIST (S-1) - Requires a Ph.D. in a relevant discipline, a strong record of research publications, and excellent interpersonal, oral, and written communication skills. In addition, a strong background in the application of synchrotron radiation in environmental science research is required, including experience with experimental design, sample preparation, and data interpretation of state-of-the-art synchrotron methods, e.g., XAFS, x-ray fluorescence microanalysis, infrared microspectroscopy. As part of the BNL EnviroSuite Strategic Initiative (<http://www.bnl.gov/envirosuite/>) this position is intended to support the ongoing joint effort by the Environmental Sciences Department and the National Synchrotron Light Source (NSLS) Department to enhance resources and support for scientists who conduct environmental science research at the NSLS. Will be expected to work with the NSLS staff to optimize the new hard x-ray microprobe beam line at X27A for environmental science research, and assist environmental science users from outside BNL with experiments at a suite of spectroscopy and imaging beam lines. Will collaborate on environmental science research and be expected to co-author publications. Under the direction of J. Fitts, Environmental Sciences Department.

MK3149. POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in physics, chemistry, or materials science, and extensive experience in ultrahigh vacuum scanning tunneling microscopy (STM), in-

cluding independent data acquisition and analysis, sampling preparation, and instrument maintenance. Previous experience in tunneling spectroscopy and microscope design is desirable. Research will focus on the development of novel techniques for atomic-scale spectroscopic imaging by STM (including the design of dedicated instruments, if appropriate), and their application to the mapping of structure, reactivity, and electronic properties of nanostructures. Research is in the area of surface science (thin-film and nanostructure growth, reactivity, and electronic structure). Opportunities for complementary work using low energy microscopy also exists. The CFN is a science-based user facility, and interaction and scientific collaboration with general users is required. Under the direction of P. Sutter, Center for Functional Nanomaterials.

Motor Vehicles & Supplies

00 DODGE NEON ES - a/t, a/c, p/s, p/b, p/w, alum. wheels, 85k hway mi., excel. cond., \$4,900. Paul, Ext. 7220, 364-0362.

99 CHRYSLER CONCORDE - a/t, a/c, p/s, p/b, p/w, V6, 2.7L, low mi., Lo-Jack sec., extras, gar., new tires, excel. \$7,500. 924-4147.

99 FORD ESCORT ZX2 - a/c, 5spd., 2dr., moonroof, excel. cond., 57K mi., \$4,400. John, 648-3927.

95 SATURN SLI - 5spd., a/c, pwr. sunroof, dark blue, runs well, all svc. records, 158K mi., \$1,000. David, 258-6087.

91 CHEVROLET S-10 PICK UP - 5spd., p/s, p/b, 4.3L V6, 4x4, rear window, 150K mi., \$595. Sean, 331-1387.

91 JAGUAR XJB - blue/green, 120K, runs very well, \$2,000. David, 396-3484.

91 POP-UP CAMPER - Coleman, sleeps 4, LPG stove, neat & clean, gd. canvas, \$1,200. Fred, Ext. 3498.

90 TOYOTA COROLLA - a/t, a/c, am/fm/cd, new spkrs., new muff. & recharged a/c., runs well, high mi., \$750. Michele, 399-0110.

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

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

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