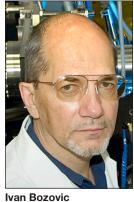




August 26, 2011





Seamus Davis

William Sampson





Ramesh Gupta

John Tranguada



Peter Wanderer

Biology's Carl Anderson, **Senior Scientist Emeritus**

Carl Anderson, former Biology Department Chair, has been named Senior Scientist Emeritus for his distinguished contributions to microbiology. Anderson retired in April 22, 2011, after a 36-year career at BNL.

Repairing DNA Damage

Among Anderson's notable achievements was the discovery and initial characterization of DNA-activated protein kinase (DNA-PK), an enzyme in human cells that is critical for the repair of DNA strand breaks. Both normal metabolic activities and environmental factors, such as radiation, can cause structural damage to DNA, and repair is essential for the cell to transcribe the gene that the DNA encodes and to prevent potentially harmful cell mutations that may lead to cancer or other diseases.

"When I was on sabbatical leave at Cambridge University in 1983, a talented graduate student, Anthony Walker, and I discovered DNA-PK by accident," Anderson said. "We didn't realize what we had found until much later, and we published our results in 1985. Since that time, DNA-PK — which is important for the development of the immune system as well as DNA repair - has been the subject of numerous studies."

Curbing Cancer

The research on DNA-PK led to studies of the tumor suppressor protein, p53. This protein regulates the activity of about 150 genes, including a critical gene that protects humans from developing cancer.



In 1989 Anderson and postdoctoral student Susan Lees-Miller, now on the faculty of the University of Calgary, found that DNA-PK phosphorylates, or adds phosphates to, p53, which changes p53's properties and activities. Making a chemical modification to a protein in this way, during a stage in protein biosynthesis that is part of gene expression, is known as posttranslational modification.

This finding led to Anderson's 20-year collaboration with Ettore Appella of the National Institutes of Health (NIH) to characterize other posttranslational modifications of p53.

"Tumor suppressor p53 integrates information in a cell," Anderson said. "It makes cells respond to stress signals, such as DNA damage, in an appropriate manner. The protein helps to re-establish normal conditions in cells. For instance, it can activate pathways in cancerous cells to stop them from growing and ... See Carl Anderson on p. 2



New York State Recognizes Eight BNL Scientists As Leaders In Superconductivity Research

This year marks the 100th anniversary of the discovery of superconductivity, a phenomenon of zero electrical resistance in certain materials below a characteristic temperature. As part of the centennial celebration of superconductivity, which continues to serve an important role in energy research, New York State held a Superconductor Technology Summit in Schnectady, NY, to recognize some of the state's foremost leaders in the field. Eight BNL researchers were among those named as New York State Leaders in Superconductivity: Ivan Bozovic, Seamus Davis, Peter Johnson, Qiang Li and John Tranquada of the Condensed Matter Physics and Materials Science Department (CMPMSD), and Ramesh Gupta, William Sampson, and Peter Wanderer of the Superconducting Magnet Division. Each was nominated as a "leader who has made important contributions to the research, development and commercialization of superconductivity in New York State over the past century." — Kay Cordtz

Ivan Bozovic

Ivan Bozovic is a leader in the field of epitaxy and nano-engineering of complex oxides, and is also renowned for his optical and Raman spectroscopy results. He is currently group leader for the Oxide Molecular Beam Epitaxy Group in CMPMSD. His seminal research continues to address some key open questions in high-temperature superconductor physics. His research accomplishments include the construction of an unparalleled next-..... See Ivan Bozovoic on p.2

J.C. Seamus Davis

J.C. Seamus Davis heads the Spectroscopy Imaging Group in CMPMSD. He built a scanning tunneling microscope that can resolve details smaller than the diameter of an atom, which he uses to study the movement of electrons in superconducting materials. His insights on how the behavior of electrons in HTS affects the transition temperature the temperature at which a material loses its electrical resistance - may lead to the See J.C. Seamus Davis on p.2

Qiang Li

Qiang Li leads CMPMSD's Advanced Energy Materials Group, which studies the microscopic and macroscopic properties of complex and nano-structured materials, including new superconductors, with a view to understanding and developing their application in different and real-world energy related technologies. For a superconductor, charges need to be paired and moving coherently to carry a current with no resistance. The 'stripe'.....See Qiang Li on p.2

William Sampson

William Sampson has helped design and build superconducting magnets that keep particle beams circulating in accelerators, such as Brookhaven's Relativistic Heavy Ion Collider (RHIC). In the 1960s, he built some of the first superconducting magnets to exceed 10 Tesla - 200,000 times the earth's magnetic field. Sampson also made early models of dipole and quadrupole magnets, used for bending and focusing beams of particles in accelerators.....See William Sampson on p.2



Peter Johnson

Ramesh Gupta

Ramesh Gupta is a leader in the world of superconducting magnets, which are essential to great modern accelerators such as the Relativistic Heavy Ion Collider at BNL, and the Large Hadron Collider at CERN, Switzerland. For the past decade, Lab researchers have been exploring the use of new materials that become superconducting at higher temperatures. Gupta, head of the High Temperature Superconductor (HTS) Research andSee Ramesh Gupta on p.2

Peter Johnson

Peter Johnson leads the Electron Spectroscopy Group, and is chair of the Condensed Matter Physics and Materials Science Department. He was recently a co-recipient of the American Physical Society's prestigious 2011 Oliver E. Buckley Prize in Condensed Matter Physics for "innovation in angle-resolving photoemission spectroscopy, which advanced the understanding of the cuprate superconductors, and transformed the study of strongly......See Peter Johnson on p.2

John Tranquada

Based on his neutron-scattering experiments in the 1980s at BNL's High Flux Beam Reactor, John Tranquada discovered that cuprates exhibit antiferromagnetism, a condition in which adjacent magnetic atoms have their magnetic north poles pointing in opposite directions. In the 1990s, Tranquada and his colleagues discovered that high temperature superconductors have a tendency toward charge segregation, which enables the coexistence of conducting and insulating properties. See John Tranquada on p.2

Peter Wanderer

Peter Wanderer is an expert in the development of superconducting accelerator magnets. He began working on them for the Isabelle Project, and his magnet work continued with the Colliding Beam Accelerator, the Superconducting SuperCollider (SSC), the Relativistic Heavy Ion Collider (RHIC), the Large Hadron Collider (LHC), the LHC Accelerator Research Program (LARP), the Accelerator Project Upgrade for the LHC (APUL), and See Peter Wanderer on p.2

The Softer Side of X-rays — Contaminated Soil From Thailand Probed at NSLS

Using a unique type of x-ray technology called tender energy absorption spectroscopy at BNL's National Synchrotron Light Source (NSLS), University of Delaware researchers, in collaboration with scientists at BNL. have shown that the chemical structure and bioavailability of cadmiumcontaminated soil changes with the flooding and drying cycles of lowland rice culture. The findings were published in the May 15, 2011, issue of Environmental Science & Technology.

In 2003, the International Water Management Institute reported that the Mae Sot district of Thailand had "considerable amounts" of cadmium and zinc in its irrigation water, paddy soils, and rice grain. Saengdao Khaokaew, a Thai graduate student at the University of Delaware and the principal investigator of the study, wanted to determine whether the cadmium remained in inert mineral form or attached to organic sulfur and carbon as a result of the flooding and draining cycles used to cultivate rice. "As of right now, rice production is officially prohibited in the Mae Sot district, affecting approximately 500 farmers and thousands of families." said Khaokaew. "But many who live there are still growing rice on contaminated land to feed... See Soft X-rays on p.3

The Bulletin

August 26, 2011

CALENDAR

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

- REGULARLY -

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

Mondays & Thursdays: Kickboxing \$5 per class. 12:15-1:15 p.m. in the gym (Bldg. 461). \$5 per class. Ext. 2873.

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

Tues.: Hospitality Welcome Coffee On hold until September.

Tuesdays: Zumba On hold until September.

Tuesdays: Knitting Class On hold until September.

Tuesdays: Toastmasters

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

Tuesdays & Thursdays: Aerobic Fitness On hold until September.

Tues., Wed., & Thurs.: Rec Hall Activities 5:30-9:30 p.m. in Bldg. 317. General activi-

ties, TV, ping pong, chess, games, socializing. Christine Carter, Ext. 5090. Tuesday & Thursday: Aqua Aerobics

On hold until September

Wednesdays: Ballroom Dance On hold until September.

Wednesdays: Pilates On hold until September.

Wednesdays: Play Group On hold until September.

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

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

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

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

Thursdays: Postdoc Social Night vw hnl 6:30 p.m. ASAP Lounge (Bldg. 462). W

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

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

Peter Wanderer from p.1

... other projects. During the SSC and RHIC projects, he was head of the Magnet Test Group. For the RHIC project, he co-

chaired the Magnet Acceptance Committee. He is currently project manager for the APUL Project and interim head of the Superconducting Magnet Division. As an example of the projects with which he has been affiliated, BNL was a key player in preparing a new material for use in a focusing magnet built by members of the multilaboratory LHC Accelerator Research Program (LARP). The material, niobium tin, retains its superconducting properties at higher temperatures than does niobium titanium, the material that is used in RHIC and in today's LHC magnets, making niobium tin more tolerant of the increased beam heating that will accompany increases in the LHC luminosity. In 2009, a magnet built by the LARP team using superconducting niobium tin achieved the goal of a magnetic field strong enough to focus intense proton beams in the upgraded LHC interaction regions. Wanderer led the effort during its most critical phase.

— K.C.

...generation molecular beam epitaxy oxide system, integrated

Ivan Bozovoic from p.1

with a 16-channel atomic absorption spectroscopy system for accurate real-time monitoring of atomic fluxes, as well as a low-energy electron microscope and a time-of-flight ion scattering and recoil spectroscopy system for in-situ, real-time, atomic-level monitoring of the film surface. Leveraging on this breakthrough in the apparatus, he has developed a technology to deposit atomically

J.C. Seamus Davis from p.1

...discovery of new superconducting materials that are suitable for applications such as zero-loss energy generation and transmission systems. Davis is also director of the BNL-led Center for Emergent Superconductivity, one of the DOE Energy Frontier Research Centers, which is focusing on the underlying nature of superconductiv-

Ramesh Gupta from p.1

Development Group in the Superconducting Magnet Division, is among those exploring avenues for HTS magnets that are energy efficient and have magnetic fields that are a million times stronger than the Earth's. These new magnets could revolutionize use in future accelerators, play a key role in energy efficiency and storage, and make possible new applications such as muon colliders and MRI screening

Peter Johnson from p.1

... correlated electronic systems." Johnson has worked with various forms of photoemission spectroscopy, including inverse (time-reversed), spin-polarized, and high-resolution photoemission spectroscopy. It is this last variant for which he was honored. The techniques that Johnson helped develop have provided more insight than any other into one of the major challenges of modern phys-

Carl Anderson from p.1

...then kill them. It also can cause cancerous cells to kill themselves.

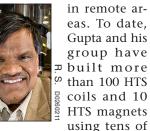
"Modifications of p53 became a topic of intense interest among biologists," he added. "About 50,000 papers have been published on p53. I maintain a map of p53 posttranslational modifications and the enzymes that are believed to have caused them. This information can aid in understanding how cancer cells are either allowed to grow or be destroyed."



low of both SPIE and the American Physical Society, and has won a SPIE Technology Achievement Award, the highest Yugoslav national award in physics, and the M. Jaric Memorial Prize, Polaroid International Prize.—K.C.

> ity in complex materials. Davis was a co-re-Scipient of the ₽ 2009 Heike - Kamerlingh Onnes Prize ifor outstanding supercon-

ductivity experiments. He was elected to the National Academy of Sciences in 2010. — K.C.



kilometers of such conductors. Gupta is also part of the BNL team that received the ARPA-E grant to study superconducting magnet energy storage magnets for MRI.

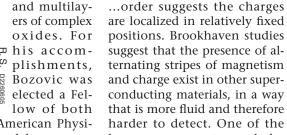


tronic materi-,⊐ als, of which ^𝔊 cuprate superconductors are one example. Johnson is a Fellow of the

American Association for the Advancement of Science, the American Physical Society, and the Institute of Physics in the United Kingdom. — K.C.

Founding a **New Group**

Beginning in 1984, Anderson met every two years with a group of distinguished protein chemists at a workshop, "Methods in Protein Sequence



that is more fluid and therefore harder to detect. One of the key measurements, made by Li, was of electrical resistance parallel to the planes of the layered material and also perpendicular to them. At a particular temperature, Li detected a big drop in resistance when the current was flowing parallel to

Qiang Li from p.1

William Sampson from p.1

Accelerators around the world, including RHIC and the Large Hadron Collider (LHC) at CERN, have benefited from this pioneering work. In the 1970s, Sampson made magnets called "wigglers" for the National Synchrotron Light Source, which began operating in 1982. He has also worked on HTS magnets that can operate in high radiation environments. Currently, Sampson is developing very high-field superconducting magnets that

John Tranquada from p.1

This work indicates that the electronic structure of HTS consists of fluctuating strings of charge, known as stripes, a concept that is increasingly influencing the current models of HTS. Currently, Tranquada leads CMPMSD's Neutron Scattering Group He was corecipient of the 2009 Heike Kamerlingh Onnes Prize for outstanding superconductivity experiments. He is a Fellow of the American Physical Society



the layers, but not when it was flowing perpendicular - to them. Li [™] is part of a 🛿 team from CMPMSD that received

a grant from the Department of Energy's Advanced Research Projects Agency-Energy (ARPA-E) to fund superconducting magnet energy storage research. The project could have a significant impact on how electricity is stored and delivered in the future. — K.C.



may be used in building a high-energy muon collider. ⊐He has re-∽ ceived the F IEEE Council on Superconductivity

Award for Significant and Sustained Contributions in the Field of Applied Superconductivity, in particular, for his contributions to the field of large-scale superconductivity. - K.C.



and the American Association for the Advancement ⊐ of Science. ∽ Tranquada received a U.S. Department of Energy

Award for Outstanding Scientific Accomplishment in Solid State Physics in 1988 and the Sustained Research Prize from the Neutron Scattering Society of America in 2006. — K.C.

BSA Distinguished Lecture, 9/8

Daniel Nocera, a professor at the Massachusetts Institute of Technology whose research focuses on solar-powered fuels, will give a lecture titled "Harnessing Energy From the Sun for Six Billion People — One at a Time," at 4 p.m. in Berkner Hall. All are welcome to this free talk, sponsored by Brookhaven Science Associates and open to the public. See more in last week's Bulletin or online: www.bnl.gov/bnlweb/pubaf/bulletin/2011/bb081911.pdf.

> partment by hiring outstanding young scientists. "I was fortu-

nate in that the Lab Director at the time, the late Jack Marburger, who appointed me as chair, had promised support for niring several new

SBU faculty since 1976.

In 2010, Anderson took a short sabbatical leave to work with a colleague at the National Institute of Environmental Health Sciences (NIEHS) at Research Triangle Park near Chapel Hill, North Carolina.

"My wife and I grew up in Chapel Hill, where my father was a professor of biochemistry at the University of North Caroli and her father lectured at the university's planetarium," Anderson said. "We thought we might retire in Chapel Hill some day, and we started construction of a retirement home there in spring, 2010." He added, "Much to my wife's disappointment, I haven't retired. I have a guest researcher appointment at the NIEHS and expect to continue my research on p53 with colleagues there. I was also invited to serve on a graduate student thesis committee at the University of North Carolina, and I recently accepted an invitation to give a minicourse on cellular response to DNA damage at a university in Japan this fall. And most importantly, I hope to continue to contribute to the Biology Department and especially to the young scientists whom I recruited." — Diane Greenberg



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strongly correlated elec-

using tens of — K.C.



Understanding the Poliovirus

In 1981, Anderson, Biology's John Dunn and Stony Brook University (SBU) researchers were one of two groups that deciphered and characterized the poliovirus genome. Two vaccines, developed in the 1950s and 1960s, have eradicated polio in developed countries, but there are still some reported cases in developing nations. The genome characterization of the virus may lead to new ways to abolish the disease or effectively treat it. Since the characteristics of the virus and genome are well documented, the poliovirus is a useful model for studying the biology of similar viruses.

Analysis." At a meeting in Greece in 1998, Anderson and other

workshop participants realized that organizing such meetings was becoming increasingly difficult. With their colleagues' approval, Anderson; Appella, NIH; and Jay Fox, University of Virginia, founded the International Association for Protein Structure Analysis and Proteomics in 1999, and the association has successfully organized meetings ever since. The next biannual meeting will be held at the University of Ottawa, Canada, in 2012. Anderson has served as secretary of the association since it was established.

Challenges as Chair

As Biology Chair from 1999 until his retirement, one of Anderson's major goals was to grow and renew the vitality of the de-



scientists, and I had access to other funds from pat-

ents that allowed me to compete for the very best talent," Anderson said. "Over my 11-plus years as chair, I hired eight young researchers, and when I stepped down, all had become successful scientists, and only one had left BNL."

Past and Future

Anderson earned a B.A. in chemistry and physics from Harvard University in 1966 and a Ph.D. in microbiology from Washington University in 1970. He was a postgraduate fellow and later a staff scientist at Cold Spring Harbor Laboratory before joining BNL's Biology in 1975 as an assistant geneticist. Anderson was granted tenure in 1981 and promoted to senior geneticist in 1996 before being named chair in 1999. Also, he has been on the

The Bulletin



With Lab Director Sam Aronson (fifth from left) are BNL supervisors who have recently completed the Supervisor Certificate program: Jason Remien, Linda Feierabend, Christopher Manning, Kevin Brown, Jonathan Laster, Kathleen Schoenig, David Gassner, and Deborah Bauer. Not present were: Richard laccarino, Michael Pankowski, and Lydia Rogers.

Eleven More Lab Supervisors Earn Super Certificates

This year, 11 more BNL supervisors completed the Supervisor Certificate program and were honored at a ceremony held on August 1. Lab Director Sam Aronson congratulated the participants and offered his appreciation for their completing this voluntary program.

The Supervisor Certificate program enables both new and experienced supervisors to improve their communication, delegation, and performance management skills. To earn the certificate, participants must complete 11 courses within three years. Credit is given for courses completed within the last ten years.

Congratulations to the August 1 certificate awardees! They were: Deborah Bauer, Kevin Brown, Linda Feierabend, David Gassner, Richard Iaccarino, Jonathan Laster, Christopher Manning, Michael Pankowski, Jason Remien, Lydia Rogers, and Kathleen Schoenig.

For more information about this program and to find other resources for supervisors, visit the Supervisory and Management Development site at http://intranet. bnl.gov/hr/staffdev/Supervisory-Site. asp or contact Starr Munson, munson@bnl.gov, or Maggie Sullivan, maggie@bnl.gov.

Before We Say, 'Goodnight, Irene' The Lab's Role During a Hurricane

By Michael Pena, Laboratory Protection Division Manager

In the Monday Memo of August 8, I encouraged the Lab community to prepare themselves and their families for a severe weather emergency, such as a hurricane, which could affect Long Island. This week, I'd like to help everyone here better understand the Lab's role and responsibility during a hurricane, what essential personnel will do during a hurricane, and what all others should do in case a hurricane comes our way.

During a hurricane, the Lab would close and only personnel deemed "essential" would work to protect and maintain our equipment and property. The Lab would open a limited hurricane shelter for essential personnel and residents of the Lab's apartments and dorms. Because some essential personnel may want to ensure the safety of their families while protecting BNL, accommodations may be provided on a case-by-case basis so they are not

left home alone during the storm. Aside from these individuals, the Lab is not properly equipped to be a shelter for local residents or non-essential employees and their families, so if you are instructed to evacuate your home during a hurricane, it is important that you follow instructions from local authorities and go to a designated certified shelter.

Your local government emergency management office will have information about where to find the nearest shelters in your area. Very often these are in local schools and municipal buildings. It is important not to go to a shelter before you verify it has been officially opened, because you may be turned away.

The Lab will communicate its operating status before and after a hurricane using the Everbridge Mass Notification system. That's why it is critical for you to make sure your contact information is complete and accurate in the Lab's PeopleSoft system. Log in to Peo-

lem," said Photon Sciences' Paul Northrup, spokesperson at X15B.

"With further research, I hope we will be able to have the information necessary to provide I wanted to find out whether it a solution for these farmers by the end of the year in 2012," said Khaokhew. "Removing the cadmium in the Mae Sot soil will probably take a mixture of two processes — the addition of chemicals that bind to cadmium and can turn into a soluble, extractable form, and phytoremediation techniques, in which we plant crops that naturally absorb cadmium." Khaokaew received a grant from the King of Thailand to conduct graduate studies in the United States and will use the results of this experiment to help reduce the toxicity and mobility of the cadmium in rice paddy soil. Support was also provided by the Delaware Experimental Program to Stimulate Competitive Research, funded by the National Science Foundation. The NSLS is funded by the DOE Office of Science. For more information, see www.bnl.gov/ps/news/news. asp?a=2527&t=today.

pleSoft today and click through to "Personal Information" to review your details and make any changes necessary. Everbridge uses the contact information in PeopleSoft to make all phone calls and send all email messages, so add your home and mobile phone numbers as well as a personal email address. Remember, you may not be able to access your work email or voicemail during a hurricane.

It is the responsibility of everyone to be prepared. If you're ready and well informed, it will make a significant difference in how you weather the storm.

Take a few minutes today to check your PeopleSoft information, review OEM's emergency preparedness website (http://www. bnl.gov/lpd/oem/hurricane.asp) and make sure you and your family are ready for a hurricane.



BNL's next blood drive will be held on Thursday, September 15, 9:30 a.m.-3 p.m. in the Brookhaven Center.

Blood donations will be valued. Donors must be 17 to 75 years of

Service Anniversaries

The following employees celebrated a service anniversary during April 2011:

– 45 Years – Robert BaroneBus. Ops Dir.

- 35 Years -Charles La Salla..... Lab Prot.

- 30 Years -Thomas RobertsNNS - 25 Years -

John Bourquin IIISite Svcs Michael Clancy, Jr.... Waste Mgmt - 20 Years -

| 20100 | 10 |
|---------------------|-----------------|
| Timothy Lehn | C-AD |
| Brian Karpin | C-AD |
| Andrew Sauerwald | IMagnet |
| Susan Perino | Bus. Ops |
| George Goode II | Dir's Off. |
| Steven Kane | Safety & Health |
| Starr Munson | HROM |
| Phillip Kuczewski. | Physics |
| Eric Blum | Photon Scis |
| Charles De La Parra | a Photon Scis |
| Richard Chylinski. | Site Svcs |
| James Nemeth | Training Offo |

| – 10 Years – | |
|---------------------|--------------|
| Christoph Montag | C-AD |
| William Bradley | ITD |
| Dantong YuC | omput. Sci |
| Leslie Hill | Dir's Office |
| Robert Metz | Env. Prot. |
| Jamie Gallagher | Fiscal |
| Michael Schueller | Medical |
| Markus Hucker | CMPMS |
| Alexei Tsvelik | CMPMS |
| Alexandru Radulescu | .Site Srvcs |

BERA Fitness

The Lab community is encouraged to join in the following classes. Advance registration is required. You may try a fitness class for free during the week of October 24, when the Lab celebrates Healthfest. To register, send: name of activity, the class day of week, number of weeks in the session, your name (printed, please), BNL Life/Guest number, Bldg. number, phone extension, email address, and emergency contact name and phone number. Make checks payable to BERA, mail to: Recreation Office, Bldg. 400A. See also www. bnl.gov/bera/recreation/clubs.asp.

The following classes are scheduled:

Pilates - 8 wks, \$40/once a week. 5:30-6:30 p.m. - Rec Hall, Bldg. 317 Monday: Sep. 12, 19, 26, Oct. 3, 10, 17, 24, and 31

Yogalates - 8 wks, \$40/once a week. Noon-1 p.m. - Rec Hall, Bldg. 317 Monday: Sep. 12, 19, 26, Oct 3, 10, 17, 24, and 31

Zumba – 8 wks, \$40/once a week or \$80/twice a week. Noon-1 p.m. -Gym, Bldg. 461

Tuesday: Sep. 6, 13, 20, 27, Oct. 4, 11, 18 and 25

5:15-6:15 - Rec Hall - Bldg. 317 Wednesday: Sep. 7, 14, 21, 28, Oct. 5, 12, 19 & 26

Aqua Aerobics – 8 wks, \$25/once a week or \$45/twice a week

5:30-6:30 p.m. - Pool, Bldg. 478 Tuesday: Sep. 6, 13, 20, 27, Oct. 4, 11,

Monday, 8/29 *IBEW Meeting

CALENDAR

- WEEK OF 8/29 -

The Bulletin regrets that this meeting was held on 8/22. See correction below.

– WEEK OF 9/5 –

Monday, 9/5

Labor Day, Lab Closed

The Lab will close today in observation of the Labor Day Holiday. No Bulletin will appear on Friday, 9/9.

Tuesday, 9/6

9/11 Remembrance Memorial

4 p.m. In front of Berkner Hall. The entire Lab community is invited to a 9/11 remembrance service at the site of a new 9/11 memorial to be located in front of Berkner Hall.

Thursday, 9/8

*BSA Distinguished Lecture

4 p.m. Berkner Hall. Daniel Nocera, Massachusetts Institute of Technology, will talk on "Harnessing Energy From the Sun for Six Billion People — One as a Time." The lecture, sponsored by BSA, the com-pany that manages BNL, is free and open to the public. Visitors to the Lab 16 and older must carry a photo ID. See p.2.

WEEK OF 9/12 -

Thursday, 9/15

*BNL Blood Drive

9 a.m.-3 p.m. Brookhaven Center. Donations of blood urgently needed. See notice at left.

— WEEK OF 9/19 —

Wednesday, 9/21

471st Brookhaven Lecture

4 p.m. Berkner Hall. Michiko Minty of the Collider Accelerator Department will talk on "Keeping RHIC's Beam Tight and the Orbit Right: Precision Control of Accelerating Beams." All are welcome to this free talk, open to the public. Refreshments will be offered before and after the talk. Visitors to the Lab 16 and older must carry a photo ID.

Correction: The Bulletin regrets that last week an incorrect date (August 29) was inadvertently provided for this month's IBEW meeting. The meeting was held on August 22.

Arrivals & Departures

| – Arrivals – | |
|-----------------|---------|
| | |
| Yichao Jing | C-AD |
| Inhee Lee | CMPMS |
| Qin Liu | Biology |
| Adam Oberstein | Biology |
| Tatiana Pyatina | ES&T |
| Vahid Ranjbar | C-AD |

Blood Drive, 9/15

http://intranet.bnl.gov/safety

up into plants. Second, to see if I could chemically alter the species and change it into a form that could be extracted from the soil."

... their families. I sought to

study the total concentration

and speciation of the cadmium

in the soils for two reasons: first,

was in a form that could be taken

Soft X-rays from p.1

The study was done at beamline X15B at the NSLS, using a tender energy absorption spectroscopy technique that allows for highly specific analysis without the destruction or alteration of the soil sample itself. The results showed that cadmium in the Mae Sot soil changed its chemical composition into potentially dangerous, organically available forms throughout various wet and dry cycles, indicating the need for remediation efforts.

"Examining the content of rice paddy soils to get both the 'big picture' as well as a close look at chemical relationships as they're formed and rearranged will ultimately lead to more effective and efficient solutions to the cadmium contamination prob-

Emily Ruppel

age, in good health and weigh over 110 lbs. Restrictions may apply to some from the UK and Europe. Donors should have a photo ID and know their social security number. Schedule an appointment online: www.bnl.gov/HR/BloodDrive/.

18 and 25

Thursday: Sep. 8, 15, 22, 29, Oct. 6, 13, 20 and 27

Aqua Therapy for Seniors - 7 wks (\$35), 14 wks (\$70) 9-10 a.m.Pool, Bldg. 478, see: www.bnl.gov/bera/linkable_ files/2011-Aqua-Therapy-reg.pdf Wednesday: Sep. 14 - Dec. 14.

| Departures – | |
|----------------------------------|---------|
| Babak Andi | Biology |
| Andrew McNerney | C-AD |
| Andrea Stadler | NC |

Come In Swinging!

Ballroom Dance Lessons Resume September 7

The BNL Ballroom Dance Club will start the following new series of six lessons on Wednesday, September 7, in the North Ballroom at the Brookhaven Center.

| 5:30 p.m. | Beginner East Coast Swing |
|-----------|---------------------------|
| 6:30 p.m. | Intermediate Bolero |
| 7.30 n m | Intermediate Ouickstep |

The cost is \$45/person for the 6-week series. New participants can try one class before they pay for the series. Note that the times have been put back 15 minutes from previous sessions. There will be no classes on September 14.

For registration information contact Vinita Ghosh, Ext. 6226, ghoshvj@bnl.gov; Arup Ghosh, Ext. 3974, aghosh@bnl.gov; Mike Hanson, Ext, 2947, hanson@bnl.gov; or John Millener, Ext. 3853, millener@ bnl.gov or go to www.bnl.gov/bera/activities/dance/default.asp.



Paper cranes symbolize health and good wishes for the Japanese people. Some of cranes hanging behind the register at this store in Japan on the right side of this photo may have been made by BNL employees and their families. For every crane made, OshKosh B'Gosh sent an article of clothing to the children of Japan.

Symbolic Paper Cranes Fly Far

During the Japan Earthquake Relief fundraiser held earlier this year at BNL, Lab employees and their families made many paper cranes, which symbolize health and good wishes to the Japanese people. The cranes were given out to people who made donations at a desk in Berkner Hall staffed daily by members of BERA's Asian Pacific American Association and other caring volunteers. The left-over cranes (more than 100) were sent to OshKosh B'Gosh for their "Cranes for Kids" program. In this program, for every crane made, OshKosh B'Gosh sent an article of clothing to the children of Japan.

Recently, Dave Stampf of the Computational Science Center was in Japan visiting family and friends and was wandering through a department store in Tokyo looking for baby clothes.

Said Stampf, "We came across an area of the store that sold Osh-Kosh clothing. Much to our surprise we saw a slew of paper cranes — maybe some of them came from BNL! I thought that all those who made the cranes at the Lab would like to know that they did indeed end up in Japan and that these efforts were appreciated. Liz Seubert

School Supplies Drive — Still Time to Donate

Please keep donating all kinds of school supplies to the collection cart in Bldg. 400, or send/drop off cash to Christine Carter, Bldg. 400. Carter buys more supplies and delivers them for distribution.

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 benefits-eligible employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present benefits-eligible 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. Access current job openings on the World Wide Web at www.bnl.gov/HR/jobs/

seat, cust. pin stripe, \$6,000 neg. 942-9284. 00 NISSAN MAXIMA - 133K mi. excel cond, a/t, antilock brakes, p/s, p/w, cassette/cd, black. \$3,600 neg. 821-4318. 99 FORD ESCORT WAGON - 142K mi. Runs well, orig owner, fuel efficient 28-30

02 KAWASAKI VOLCAN CLASSIC 1500 -

13.5K mi. shwrm cond, w/new pipes, cust,

mi/gal. \$3,000. Eli, Ext. 7179. 99 VW PASSAT - 141K mi. 1.8T a/t; a/c; pwr s/ roof; new brakes, t-belt seals, serp belts; NYS inspctd, pic. \$4,000 neg. wfielitz@gmail.com.

88 CHEVY TRUCK K5 - 135K mi. K5 Blazer Silverado, 5.7l TBI rebit top end, new brakes, more. \$1,500 neg. 484-9888.

Boats

23' ODAY 1974 - 23' convrtbl C/B,1974 - access w/9.9 O/B, Pulpit, Pushpit, Lifelines PFD's, SwimLaddr Sails: Main w/cvr, Jib, Genoa; more. \$2,300 neg. Ext. 5055.

15' PERCEPTION SUNDANCE II - Tandem, two person Kayak w/rudder. \$350 neg. Jerry, Ext. 4089 or jerryg@bnl.gov.

11' AVON INFLATABLES ROVER 3.41 - '96 model, Hypalon construct, infltbl deck & keel, woodn oars, air ft pump, carryg bag, 3.5 HP OB motor. \$1,150 neg. Ext. 2788.



Health, Fitness, Camaraderie: Jones Beach Challenge

On your mark...get set...GO!

At 7 p.m. on July 26, contestants in the Marcum Workplace Challenge 3.5 Mile Run/Walk got going, racing along at Jones Beach. About 65 BNL participants joined in this year - including many new employees — all sporting white shirts stamped with the BNL logo, courtesy of Brookhaven Science Associates.

Said Paul Geiger, who, with Mike Mapes, captained the runners, "Two of the BNL teams, one women's and one men's, placed in the top ten. Katie Skinner, Weimin Zhou and Betty Elder came in second among 54 teams; and Mike Bilello, Wayne Lewis, and Mike Mapes came in eighth out of 108 teams. The rest of us also competed well and we all enjoyed the race."

under the BNL tent to enjoy a picnic together.

"This was another wonderful time for all of us who joined in the fun of that evening," said Betty Elder of the Business Systems Division, who organized the event for the BNL participants. "Our tent, which was provided thanks to Michael Thorn and the Health Promotion Program, was in a fine location, easy to find and right near the beach. It makes a real difference to have a tent, both for the shade and for us all to gather together. The picnic was also great and I particularly thank the volunteers for all their assistance. Also, thanks to Brookhaven Science Associates, we all had the same shirts, so we really looked and felt like a BNL team. We were all so enthusiastic, I know we're looking forward next year's event already. Hope to see you there!"

After the run or walk, everyone gathered Note: After expenses, the organizers of the Marcum Challenge give all proceeds from fees to charity.

WADING RIVER - 20 Barnes Rd, Sat-VARIOUS - Delonghi heaters, fans/table/ urday 3/20 9am-5pm; all kinds of good

Happenings

CHEVY OWNERS CAR SHOW - Sun. 8/28, 12-4 p. VFW Post 8300 Dunton Av, E. Patch, open to all years, makes, & models, cars & cars for sale/\$15. Spectators/\$5. Vendors/\$25 per space, Live music. Debbie, Ext. 3120.

FAMILY NIGHT WITH THE DUCKS - Wed. 9/21, 6:35 pm, \$30/ticket incl T-Shirt, proceeds to benefit the Riverhead Charter School, flyer avail w/more info, contact.

Cheryl@rodneypetewatson.com. LONGWOOD FAIR - Visit St John the Theologian Orthodox Church's food booth at annual Fair, 9/10-9/11, Smith Rd, Longwood Estate, Ridge. Barbara, Ext. 4960, 793-9175 or blade@bnl.gov.

LUCAS FORD MUSTANG CAR SHOW -9/11, 9a-3p, \$20 entry, free admission to spectators, 1st, 2nd, 3rd place trophies, proceeds to ALS Resrch & Nat'l Sept 11 Memorial & Museum, Southold. Howard Lucas, 765-9200.

TUNNEL TO TOWERS RUN - Looking for runners/walkers to participate in this year's "Tunnel to Towers" 5k run on 9/25. If interested, please contact me ASAP. http://tinyurl.com/yez9pm7. website: Marcel, Ext. 5517 or mrosenfe@bnl.gov.

For Rent

MANORVILLE - Condo on Rock Hill Golf Course 3 bdrm 2.5 ba. master bed/bathsuite, poss M/D, f/p in l/r, 2200 sq ft, loc. on 12th hole, pool, tennis. \$2,500/mo neg. 909-8080.

MASTIC - new apt, 1 bdrm, full bath, fully equip new eik & carpeting/paint, priv ent, quiet n'borhd, 8 min to BNL, walk to shop, util incl, no smkg/pets, 1 mo, 1/mo

ROCKY PT - 2 bdrm hse, gar, pet considered, avail Sept 1, plus util, \$1,400/mo. 878-8442 or 516-429-2002.

SHOREHAM - 1 bdrm furnd studio apt, sep ent, full bath, kitch, patio; big yd, sep, thermostat, int, cable TV, no smkg/ pets, 7 min to Lab, avail 9/11. \$825/mo neg. 821-4318.

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

SUFFOLK - 1 bdrm apt, bath, l/rm/kitch combo, priv ent, off st prk, util incl, basic cable/box extra, Wi Fi, sing. occup. only. \$900/ mo neg. 413-4908 or betner3@aol.com.

WADING RIVER - 1 bdrm apt, l/r, d/r, full bath, kitch hardwd flrs, spacious 2nd flr, priv ent, Waterfront, v/quiet, incl heat/elec, no smkg/pets, plus 1 mo sec. \$1,200/mo. 487-6841.

For Sale

MIDDLE ISLAND - 4bdrm, 2.5bath, bright Victorian, '03 construction, cac, cherry cabinets, stainless steel appli, hardwd flrs, custom tile, f/p, hobby rm in bsmt, more. \$325,000 neg. 917-697-6754.

SHOREHAM - 3 bdrm, 1.5 bath, Colonial on cul de sac, updated kitch w/stainless appli, updated bath, den/fp, new w/d, deck, woodshed, SWRSD, 10 min to Lab. \$364.000, Andrea, Ext. 3347, 744-8793.

WALTON - 3bdrm 2 bath, hse w/7.5 a/c, Ig barn, about 4hrs from BNL, great location for hunting, fishing or just sometime away. \$159,000 neg. Chuck, Ext. 8011.

Wanted

A.M. CHILDCARE - in our Calverton home, 6:45-8:45, caring for 2 young boys, prepare them for school, sometimes drive, non-

standing lamps; Friedrich ac, TV, spkrs, etc., chairs/reg & folding; burning stove/ stuff. Laura, Ext. 2520. not used; make offers. Call pm. 289-1125.

Sports, Hobbies & Pets

2011 JAYCO TRAVEL TRAILER - Jayco 29' RLS big pic window, sleeps six, many extras, 7-yr transferable warr ask/\$22,000. Ext. 5684, 872-5074, jonesr@bnl.gov.

JET TICKETS - 2 for Aug 21 vs Bengals 7pm w/prkg; buy 1 at face get the 2nd at 1/2 price and free prkg. Patrick, Ext. 8217, 872-8961 or brownep@bnl.gov.

NY METS V BRAVES - Sat, 8/27, game time 4:10 pm; 3 tickets \$40/ea; incls \$18 food voucher; Sec 335 Row 4, \$54 value! Ext. 3467.

Tools, House & Garden

Free

Lost & Found

Miscellaneous

CHEVALIER SURFACE GRINDER - 6x18 chuck, w/vacum and pump, xtra stones, \$500. Gary, Ext. 5042.

POWER TOOLS - antique scrollsaw \$50; 2 air cmpressrs 90psi max/\$25/ea, 1/10"compnd mitersaw Craftsmn \$25, 2/Makita drill/driver/\$35/ea; 1 4/6" Disc/belt sander. 816-6891. SNOW THROWER - Craftsman 24" 5.5HP 4cycle 3spd w/manuals-v/gd cond, b/o over \$250. Ext. 3766 or pgo@bnl.gov.

HP 940C - color inkjet printer, USB con-

nection, gd working cond. levine@bnl.gov

LOST KEYS - 8/17 nr Bldgs 855/860,

set of 10 keys w/a blue wriststrap & red

keychain. Please contact me if you find

them! Nicole, Ext. 4585 or nchiu@bnl.gov.

To apply for a position, go to www.bnl.gov. Se lect "Job Opportunities," then "Search Job List."

LABORATORY RECRUITMENT - Opportunities for Laboratory employees only.

STATIONARY ENGINEER, SR. (LG-11) -Under minimum supervision operates, maintains and repairs any heat generation equipment, facilities, and auxiliary and related equipment. May be required to assign, direct, or check the work of other personnel in connection with assigned responsibilities. Please apply to Job ID #15879.

Motor Vehicles & Supplies

08 BMW 335I COUPE - 57.5K mi. blck leathr, wood trim, s/roof, sprt pkg, must go! Bmw Serviced. \$25,000. Brandon, Ext. 4028.

03 HYUNDAI SUV-SANTAFE - 99.5K mi. Ithr, heatd seats, s/roof, a/t, extras, excel, new timg belt & brakes. \$5,700 neg. Ext. 8219.

02 CHEVY CAMARO - 37K mi, convertible. 35th An. Ed. 728, V8, loaded, mint cond. blue w/tan soft top. \$10,600 neg. 275-0694. **Furnishings & Appliances**

BED FRAME, HEAD BOARD - Twin sz hdbrd, ft brd, frame, excel cond, white w/brass trim, photos, ask/\$95. Ext. 5669.

BEDROOM FURNITURE - dresser, desk, twin bed frame, \$100/all. stoll@bnl.gov.

CAMERA - Panasonic Lumix DMC-FH20R,Black, 28mm wde angle, 8X optical zm, 720 HD movies,14 MP, 2GB card, case, less than 1 yr old, \$130/neg, 344-4290.

GAS STOVE - must sell! White gas stove, gd workg cond. Pics. Shaniece, Ext. 5392 or scbell@bnl.gov.

KITCHEN TABLE & CHAIRS - light maple table w/leaf, 60"x 36", 4 spindle back chairs, excel cond, \$300. 678-3299.

LEATHER SECTIONAL - 5/pc, brown w/2 built-in reclinrs, new cond, pic, pd/\$4000, ask/\$1999. 264-5473, jjsulli2009@aol.com.

STEREO CABINET - black heavy duty audio component w/glass dr. excel cond/\$100. 678-3299 or dgbdoug@gmail.com.

AUDI & VW REPAIR - Certified VW tech w/7 yrs exper., all types of repairs, Many repairs same day. Referrals. 484-9888.

35mm CAMERAS - elec & manual typewriters, dishes, framed art, bric-a-brac; reasonable \$ offers accepted! Call pm. 289-1125.

PLANT STAND - elegant black, 3 levels, about 6' tall, parts fit in a sm box, easy to assemble, pic avail, \$30. Lg. family sz G. Foreman rotisserie, \$40. Paul, Ext. 2899, porfin@bnl.gov.

RARE COLLECTIBLE COMIC BOOKS - from 1940's and up. Consignment services avail, Biffcomics@gmail.com.

SOUTHWEST DRINK COUPONS - 2/books, gd for 6 or 8 drinks, expire Aug 31, hurry/\$10. Mike, Ext. 2947, hanson@bnl.gov.

Yard & Garage Sales

PATCHOGUE - Yard Sale at Grace A.M.E. Zion Church Grant Place & Cleveland Street, Sat, Aug 27, 9am-3pm. All proceeds donated to the church. Mary, Ext. 7143.

RIDGE - furniture, dishes, glasses, various kitch items, collectibles, decorative items, Sat, 8/27, 10a-3p, 14 Kingston Dr. Celeste, Ext. 2551, 909-1102.

sec . \$825/mo neg. 335-4907

MIDDLE ISLAND - spacious 1/bdrm condo in gated community, gym, clubhse, lg pool, incl heat, 1/mo sec, tenants moving out but can have ready ASAP \$1,250/mo. Susan, slattuca@bnl.gov.

NESCONSET - Ig studio, Ig bdrm, new cust kit, st'less steel appli, Ital tiles, priv patio, igp, glass shower 4 heads + 6 jet tub, cac, furn, util incl, avail 10/01. Don, dogecy1@aol.com.

PATCHOGUE - sm 2 bdrm cottage, fenced yd, w/d, plus util. \$1,300/mo. Betty, 475-1961.

RIDGE - 1 bdrm, I/r, kitchenette, full bath, mins to Lab, N/S, no pets, sep ent and prkg. \$975/mo. Linda. 924-0002.

ROCKY POINT - 2 bdrm hse, full bath, w/d, kit, lr/dr, prvt drwy, & yrd, ohw heat, pets ok. \$1,450/mo. Pete. Ext. 4028.

ROCKY POINT - 2-3 bdrm, 2 bath, Ig storage shed, quiet neighbor, nr. beach, stores, 10 mi to BNL, 14 mi to SBU. \$1,500/mo. 525-6648, samandsea@ymail.com.

wn transpor

LOG SPLITTER - 15 ton log splitter or larger, reasonably priced. 839-6327.

MOTORCYCLE TRAILER - basic, reasonable price. Thomas. 513-5162.

POOL LADDER - reqd for a 18' agp, preferably w/a safety feature, ladder can be placed upright after use, reasonable. Nina, Ext. 5894, 475-1297.

WASHER & DRYER - electric, gd working cond, apt size. Edward, Ext. 7502.

In Appreciation

To all my wonderful friends at BNL who expressed their sorrow and sympathy to me and my family on the loss of my father Chet Bubka. Thank you one and all for your support through this difficult time.

Steve Bubka

To all friends and coworkers: I don't know how to thank you for the gifts and support you gave by coming to the service for my husband, Fred. It was so good to see all of you. - Gladys Kuehl and family

Bulletin

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