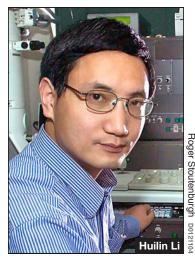
Bulletin



Vol. 65 - No. 6 February 18, 2011







BNLers in Local Papers' Spotlight

Village Beacon Record Honors Gang, Li

The *Village Beacon Record*, a local weekly newspaper, honored Oleg Gang, Center for Functional Nanomaterials, and Huilin Li, Biology Department, as its 2010 Men of the Year in Science and in Health/Medicine, respectively. They were featured in the December 30, 2010 edition of the newspaper. More on these two scientists is available at www.bnl.gov/today/story.asp?ITEM_NO=2203.

Huilin Li, Man of the Year in Health/Medicine

Huilin Li was a key member of a team of scientists from BNL, Stony Brook University (SBU), and Weill Cornell Medical College whose research revealed how a proteasome — a structure essential to the tuberculosis (TB) bacterium's survival — is put together and how it works. These details could assist in the development of anti-TB drugs.

"Mycobacterium tuberculosis, the bacterium that causes TB, infects one person in three worldwide, so finding new ways to battle this pathogen is a major public health priority — particularly in developing nations where active TB infections are endemic," Li said.

Most people infected with TB remain symptom-free because the bacterium that causes the disease is kept in check within immune system cells. These...

See Huilin Li on p. 2

Oleg Gang, Man of the Year in Science

With colleagues from BNL, Gang developed a method to control the self-assembly of nanometer and micrometersized particles. The technique can be used to manipulate the structure — and therefore the properties and potential uses - of many materials at the molecular level. Such fine-tuning of materials promises numerous applications in efficient energy conversion, cell-targeted systems for drug delivery, and bio-molecular sensing for environmental monitoring and medical applications.

The BNL team attached two types of DNA — the molecule that carries life's genetic instructions — to gold nanoparticles and polystyrene (a type of plastic) microparticles, for the self-assembly experiment. These particles served as...

See Oleg Gang on p. 2

News-Review Honors Robert Brown

Retiree Robert "Bob" Brown of Riverside, well remembered by many of his colleagues at BNL from his 37 years of service to the Lab, has been named the local weekly paper *Riverhead News-Review*'s Public Servant of the Year for his many contributions of service to his community around Riverhead.

Brown came to BNL in 1963 in the Medical Department as a medical services assistant. He rose to technical specialist in the Radiological Control Division, and although he retired in 2001, he still gets the latest BNL news from his wife, Aramentis Brown, who works in the Procurement & Property Management Division. Since his retirement, Brown has earned recognition for the many ways in which he helps to make a difference to life in his community around Riverhead.

As examples of Brown's activities: he is a board member of the Long Island Organizing Network, assisting victims of the 2010 flooding in Riverhead. He volunteers with the Open Arms Care Center to collect food for...

See Robert Brown on p. 3

Unique New Probe of Proton Spin Structure at RHIC

Direct measurements allow detailed look at how quarks of different flavors contribute to spin

Scientists hoping to unravel the mystery of proton spin at the Relativistic Heavy Ion Collider (RHIC), a 2.4-milecircumference particle accelerator at BNL, have a new tool at their disposal — the first to directly explore how quarks of different types, or "flavors," contribute to the overall spin of the proton. The technique, described in papers just published by RHIC's STAR and PHENIX collaborations in Physical Review Letters, relies on the measurement of particles called W bosons, which are the mediators of the weak force responsible for the decay of radioactive nuclei.

"Exploring the mystery of proton spin has been one of the key scientific research goals at RHIC," said Steven Vigdor, BNL's Associate Laboratory Director for Nuclear and Particle Physics. "Like many scientific mysteries,

this one turns out to be more complex the more we learn about it. The W boson measurements were enabled by new detection techniques at RHIC's STAR and PHENIX experiments and by extending RHIC's world-record energies for the acceleration of proton beams with a distinct spin orientation preference. The results will allow us to tease apart subtle details that were previously inaccessible, and should move the field closer to a quantitative understanding of proton spin structure and dynamics."

Research at RHIC is funded primarily by the DOE Office of Science, and by national and international collaborating institutions.

— Karen McNulty Walsh Get the rest of the story and links to the *Physical Review Letters* papers at *www.bnl.gov/bnlweb/pubaf/pr/PR_display.asp?prID=1232*.

BSA Distinguished Lecture, 3/4

Harvard Chemist Xie's Talk: Life at the Single Molecule Level

Xiaoliang Sunney Xie, Mallinckrodt Professor of Chemistry and Chemical Biology at Harvard University, will give a BSA Distinguished Lecture titled "Life at the Single Molecule Level," on Friday, March 4, at 4 p.m. in Berkner Hall. BSA Distinguished Lectures are sponsored by Brookhaven Science Associates, the company that manages BNL, to bring topics of general interest before the Lab community and the public. The lecture is free and open to the public. Visitors to the Lab age 16 and over must bring a photo ID.

Xie and his team have made numerous, significant advances in single-molecule imaging of living bacterial cells. They are able to monitor the intricate processes of gene expression — converting information found in a gene to a protein — in a living cell as they occur. Some of their results are quite surprising. For example, they have been able to show how cells with identical genes can exhibit different characteristics.

The researchers found that rare events occurring in a single molecule can have important biological consequences. In his lecture, Xie will explain how his research has led to groundbreaking discoveries in biophysical chemistry and biology.



Xie earned a B.S. in chemistry from Peking University in 1984 and a Ph.D. in chemistry from the University of California at San Diego in 1990. He joined the University of Chicago as a postdoctoral fellow in 1990 and moved on to become a senior research scientist, and later chief scientist, at Pacific Northwest National Laboratory, from 1992 to 1998. He joined Harvard University in 1999 as a professor of chemistry, and he was named the Mallinckrodt Professor of Chemistry in 2009.

A Fellow of the American Association for the Advancement...

See BSA Lecture on p. 2

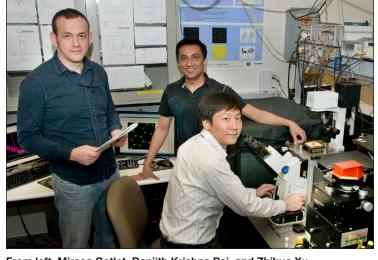
Transparent Conductive Material Could Lead to Power-Generating Windows

Combines elements for light harvesting and electric charge transport over large, transparent areas

Scientists at BNL and Los Alamos National Laboratory (LANL) have fabricated transparent thin films capable of absorbing light and generating electric charge over a relatively large area. As described in the journal *Chemistry of Materials* online in November 2010 and in the February 8, 2011, issue, the material could be used to develop transparent solar panels or even windows that absorb solar energy to generate electricity.

The material consists of a semiconducting polymer doped with carbon-rich fullerenes. Under carefully controlled conditions, the material self-assembles to form a reproducible pattern of micron-size hexagon-shaped cells over a relatively large area (up to several millimeters).

"Though such honeycombpatterned thin films have previously been made using conventional polymers like polystyrene, this is the first report of such a material that blends semiconductors and fullerenes to absorb light



From left, Mircea Cotlet, Ranjith Krishna Pai, and Zhihua Xu

and efficiently generate charge and charge separation," said lead scientist Mircea Cotlet, a physical chemist at BNL's Center for Functional Nanomaterials (CFN).

Furthermore, the material remains largely transparent because the polymer chains pack densely only at the edges of the hexagons, while remaining loosely packed

and spread very thin across the centers. "The densely packed edges strongly absorb light and may also facilitate conducting electricity," Cotlet explained, "while the centers do not absorb much light and are relatively transparent."

"Combining these traits and achieving large-scale patterning...

See Power Windows on p. 2

BrookhavenSphere

Talk: Views of the Brain, 3/11 (see p. 2)

The Bulletin February 18, 2011

Next BNL Blood Drive: 2/23 BNLer Cisco Receives, Gives the Gift of Life

Gretchen Cisco, deputy user administrator in the Photon Sciences Directorate, vividly recalls the moment she became highly motivated to give blood — it was on September 11, 2001, the day of the attack on the World Trade Center.

While giving blood just after that day, she was reminded of the personal event that truly made her realize the impact blood donors have on people every day. Several years earlier, Cisco had been rushed to a hospital and required emergency surgery and a blood transfusion.

"My husband and I were so frightened," said Cisco. "I received five pints of blood during that surgery, which truly saved my life. I will be forever grateful to blood donors."

Cisco said that she was unable to donate blood for quite some time after receiving her transfusion as she was anemic and there is a 12-month wait-



ing period for donors who have received transfusions.

"When 9-11 happened, I was ready, willing, and able to donate blood," she said.

Cisco notes that she has an uncommon blood type and tries to donate blood whenever possible. She is also considering becoming a platelet donor.

Next BNL Blood Drive is Wednesday, February 23

BNL's next blood drive will be held on Wednesday, February 23, from 9:30 a.m. to 3 p.m. in the Brookhaven Center. Donors must be 17 to 75 years of age, and in good health. They must weigh over 110 lbs and have a photo ID. Restrictions may apply to individuals from the UK and Europe.

To make an appointment, go to http://www.bnl.gov/hr/blooddrive/ or contact Liz Gilbert at Ext. 2315.

"I urge people to donate blood, but if they are unable to do so, I suggest they consider volunteering during the blood drives," said Cisco. "I have friends and co-workers who assist the donors by working the registration desk and escorting them to the refreshment tables. It's another way of supporting the blood drive and it's a small personal effort that has an immense impact."

— Jane Koropsak



BrookhavenSphere Seminar, 3/11

Neuroexpressionism — Looking **Into Multifaceted Views of the Brain**

On Friday, March 11, join William W. Lytton, a practicing neurologist and professor of physiology, pharmacology, neurology, and biomedical engineering at the State University of New York Downstate Medical Center, Brooklyn, as he gives a seminar entitled "Neuroexpressionism — How Data Mining and Simulation Provide Multifaceted Views of the Brain." All are welcome to this free event, sponsored by BNL's BrookhavenSphere, at 11 a.m. in Berkner Hall, Room B.

result of new experimental and clinical tools, a massive flow of data is emerging from biological investigations, ushering in a new era of computer modeling, coupled with knowledge discovery and data-mining. He will discuss his view that systems biology, deriving from the demands made by the data streams of genomes and proteomes, is extended in neurobiology by utilizing data from the electrome (the signal flow within the neuron), connectome (neural connectivity) and physiome (multiunit recording). He will also suggest that this change in scientific perspective can be compared to the literal and figurative perspective shifts as the arts moved from Academicism to Impressionism, Cubism, and

Lytton will explain that, as a Expressionism.

William W. Lytton trained in

William Lytton will tour the BNL lifesciences labs on March 11, between 1 and 3 p.m. To arrange for him to see your work, e-mail Lev Neymotin at neymotin@bnl.gov.

chemistry at Harvard University, in medicine and neurology

Huilin Li from p. 1

such as nitric oxide, which scientists believe damage or destroy the bacteria's proteins. When the damaged proteins accumulate, they kill the bacteria. But the TB proteasome, a protein-cleaving complex, carves up the damaged proteins, allowing Mycobacterium tuberculosis to survive, and possibly go on to cause active infections. The recent research performed by Li and his collaborators may provide important clues on

In a recent study, Li and his colleagues used the National Synchrotron Light Source (NSLS) and a special type of microscope to take molecular-level snapshots of the proteasome at various stages of assembly. The studies revealed important changes in the shapes of the components of the proteasome structure as well as details about the actions of the proteasome. The snapshots also showed how one particular component could inhibit the

substrate has to pass through an opened gate in the proteasome and reach an interior chamber where protein carving occurs. The researchers determined how the TB proteasome keeps

at Columbia University, and in computational neuroscience at Johns Hopkins University and the Salk Institute. The author of more than 40 research papers focusing primarily on the basic mechanisms of brain function and dysfunction, he also authored the undergraduate text From Computer to Brain.

BNL's BrookhavenSphere is designed to bring together the collective technical knowledge of the BNL community to pose and solve complex cross-disciplinary scientific and technological problems, formulate and develop research ideas, and propose innovative technological solutions in the service of humanity. Learn more at http://intranet.bnl.gov/ brookhavensphere/.

...cells produce compounds ways to disable this action.

assembly process.

To be degraded, a protein

cleaving chamber shut. "The fully constructed proteasome is literally a death chamber for cellular proteins, so the passage to the chamber has to be safely closed, and open only when necessary," Li said.

the entrance to the protein-

But the catch is that human cells have a similar proteasome to degrade unwanted proteins in "recycling factories." This protein-recycling system is essential for human survival and would be destroyed if an inhibitory drug were not specific to the bacteria. Therefore, finding the differences between the human and the bacterial proteasome systems is critical to designing a novel anti-TB agent.

Using x-rays as probes at the NSLS, Li, with colleagues from BNL and New York University's School of Medicine, showed a key difference in the way human cells and Mycobacterium tuberculosis bacteria deliver unwanted proteins, marked with a "kiss of death" sequence to their respective cellular recycling factories. Human cells use a different marker protein and a completely different mechanism for drawing doomed proteins into the proteasome. Thus, TB therapies with a specific target, as identified in the earlier study, would not endanger the essential interactions of the human proteasome. — Diane Greenberg

Oleg Gang from p. 1

...models for the possibility of using the technique with other small particles.

"In biology, DNA is mainly an informational material, while in nanoscience. DNA is an excellent structural material due to its natural ability to self-assemble according to well-specified programmable rules," Gang explained.

"Our method is unique because we attached two types of DNA with different functions to particles' surfaces," he added. "The first type — complementary single strands of DNA — forms a double helix. The second type is non-complementary, neutral DNA, which provides a repulsive force that allows for regulating the size of particle clusters and the speed of their self-assembly with more precision."

 $The \ scientists \ synthesized$ DNA to chemically react with the particles. They controlled the assembly process by keeping the total amount of DNA constant, while varying the relative fraction of the two types of DNA. This technique allowed for regulating assembly over a very broad range, from forming clusters consisting of millions of particles to almost keeping individual particles separate in a non-aggregating form.

Gang and his colleagues used the Center for Functional Nanomaterials (CFN) and the National Synchrotron Light Source (NSLS) to perform their groundbreaking research. At the CFN, the scientists used a specialized microscope to visualize the clusters that they fabricated. Gang and his team used x-rays at the NSLS to study particles in solution, DNA's natural environment. — Diane Greenberg

Arrivals & Departures

Arrivals – Abram LedbetterChemistry Departures – Robert Lenahan PPM

American Red Cross Lifequard Training

Lifeguard training classes will be held at the pool (Bldg. 478) on Sundays from 10 a.m. to 3 p.m. from March 27 until May 15. Participants must be at least 15 years old, pass a pre-test held on Sunday, March 20, from 10 a.m. to 1 p.m., and attend every class. Call 631-921-6218 to register.

BSA Lecture from p. 1

... of Science, the American Physical Society, and the Biophysical Society, Xie has also won numerous awards, including the Coblentz Award in 1996, the Raymond and Beverly Sackler Prize in the Physical Sciences in 2003, the National Institutes of Health Director's Pioneer Award in 2004,

the Willis E. Lamb Award for Laser Science and Quantum Optics in 2007, the Berthold Leibinger Zukunftspreis for Laser Technology in 2008, and the E. O. Lawrence Award in Chemistry from DOE in 2009. He was elected to the American Academy of Arts and Sciences in 2008.

— Diane Greenberg

Reminders From the Benefits Office

Deadline for 2010 Reimbursement Account Claims

The Benefits Office would like to remind the Lab community that March 31 is the deadline for submitting any 2010 reimbursement account claims. Claims incurred in 2010 should be sent to PayFlex. Instructions and forms are available from the Benefits Office website: http://www.bnl.gov/hr/Benefits/ReimbursementAccounts.asp.

Adding New Dependents

The birth of a child, adopting a child, and getting married are all exciting life events. Please remember to enroll any new dependents in your medical and/or dental programs within 30 days from the date your new dependent is born, adopted, or otherwise becomes eligible for coverage. If you do not enroll your dependent through the Benefits Office within 30 days from the date your new dependent first becomes eligible, you will be required to wait until the next Open Enrollment Period. For more information, please call the Benefits Office: Ext. 2877 or 5126.

Power Windows from p. 1

...could enable a wide range of practical applications, such as energy-generating solar windows, transparent solar panels, and new kinds of optical displays," said co-author Zhihua Xu, a materials scientist at the CFN.

"Imagine a house with windows made of this kind of material, which, combined with a solar roof, would cut its electricity costs significantly. This is pretty exciting," Cotlet said.

The research was supported at LANL by the DOE Office of Science. The work was also carried out in part at the CFN and the Center for Integrated Nanotechnologies Gateway (CING) to Los Alamos facility. The BNL team, besides Cotlet and Xu, included Ranjith Krishna Pai. Collaborators from Los Alamos include Hsing-Lin Wang and Hsinhan Tsai, who are both users of the CFN facilities at BNL, Andrew Dattelbaum from the CING facility, and project leader Andrew Shreve of the Materials Physics and Applications

The scientists fabricated the honeycomb thin films by creating a flow of micrometer-size water droplets across a thin layer of the polymer/fullerene blend solution. These water droplets selfassembled into large arrays within

the polymer solution. As the solvent completely evaporates, the polymer forms a hexagonal honeycomb pattern over a large area.

"This is a cost-effective method, with potential to be scaled up from the laboratory to industrialscale production," Xu said.

The researchers verified the uniformity of the honeycomb structure with various scanning probe and electron microscopy techniques, and tested the optical properties and charge generation at various parts of the honeycomb structure (edges, centers, and nodes where individual cells connect) using timeresolved confocal fluorescence

They also found that the degree of polymer packing was determined by the rate of solvent evaporation, which in turn determines the rate of charge transport through the material.

"The slower the solvent evaporates, the more tightly packed the polymer, and the better the charge transport," Cotlet said.

"Our work provides a deeper understanding of the optical properties of the honeycomb structure. The next step will be to use these honeycomb thin films to fabricate transparent and flexible organic solar cells and other devices," he — Karen McNulty Walsh

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One Hundred Percent...And Then Some

BNL's 2010 United Way Campaign reached above and beyond its goal of raising \$140,000

Most BNLers saw from the sign near the Lab's main gate that the 2010 United Way Campaign raised 100 percent of its goal, but the campaign actually reached well beyond that \$140,000 goal to support education, income and financial stability, and health on Long Island.

On February 1, members of the campaign

gathered in the Physics Department's large seminar room to present the United Way of Long Island with a check for \$175,015.96, the largest amount ever raised in the Lab's 45-year history of donating to the United Way, and \$35,015.96 more than the 2010 goal.

The ceremony began with welcoming remarks from BNL's 2010 United Way Campaign Chair Roy Lebel, Deputy Director for Operations Mike Bebon, and Deputy Director for Science & Technology Doon Gibbs, who reaffirmed their commitment to the United Way program.

United Way Account Executive Dawn Nielson received the check and thanked the Lab community. "Your dedication is clear. BNL is a wonderful family and we thank you for bringing us into your family," she said.

The 2010 campaign was led by Lebel and Co-Chair Joyce Fortunato, both of BNL's Quality Management Office, with teamwork and help from more than 50 captains from departments, divisions, and offices across the site. Between November 4 and



From left, United Way of Long Island's Dawn Neilson, BNL's Doon Gibbs, Joyce Fortunato, Roy Lebel, United Way's Michael Cooney, BNL's Mike Bebon, and YouthBuild participant and future BNL mentee Ivan Rodriguez

December 31, BNLers raised nearly \$27,000 at various fundraising events, such as craft and bake sales, luncheons, and the holiday auction.

Brookhaven Science Associates, the company that manages BNL, contributed \$10,000 for the 500 hours that BNLers volunteered in their own communities through the Volunteer Days program. BNLers also volunteered an additional 877 hours in their communities during the campaign. The remaining sum of \$138,000 was collected through pledges from BNL employees.

Winners of the pledge drive raffle were Carmen Alvarado, Norman Day, Kathleen Brown, Russell Dietz, and Richard Horowitz.

"The record-breaking amount of money that we raised will make a true difference for many Long Islanders. The BNL family sure can work as a team when we need to," said Lebel.

"This was an exciting year for our campaign, with new ideas for fundraising and spreading the word to help the community," added Fortunato, who also worked as a captain in BNL Unit-

ed Way campaigns for the past 10 years. "BNL's United Way campaigns show what great accomplishments we can achieve with such strong group efforts."

...And That's Not All

In the same spirit of giving, BNLers also helped support those less fortunate in

the Long Island community by donating diapers, dresses, coats, toiletries, bedding, and more to two homeless shelters on Long Island, including Nana's House, which provides temporary housing and services for homeless families in the Mastic/Shirley/ Moriches area.

Through the work of BNL's Diversity & Quality Management offices and the Facilities & Operations Directorate, Ivan Rodriguez, who was introduced in the Bulletin of December 3, 2010, and participates in the United Way of Long Island's YouthBuild program, will begin a six-month mentorship program for on-the-job training with members of the Lab's Modernization Project Office.

United Way of Long Island works with more than 100 organizations on the Island to support education, income and financial stability, and health. Eighty-three cents of every dollar that BNL raised for the United Way will go directly into local communities helping Long Islanders in need.

Congratulations and thanks, BNL. — Joe Gettler

Robert Brown from p. 1 ...people in want. As a repre-Baptist Church.

sentative of First Baptist Church of Riverhead, where he sings in the choir, he attends Riverhead school board meetings to ensure that the church stays abreast of school issues. Several times, he has mentored youngsters who need an advocate to help resolve problems involving the school system. He is one of the judges of the annual Garfield Langhorn Essay Contest for sixth-graders at Pulaski Street Elementary School, and he regularly helps to organize an annual celebration in Stotzky Park that was established to commemorate the end of slavery and to honor African-American education and achievement.

In the January News-Review article announcing Brown's honor, author Tim Gannon reports on the high opinion of Brown held by many local figures, including former Riverhead Supervisor Vincent Vinella, Riverhead School Superintendent Nancy Carney and school officials, and the Reverend Charles Coverdale of First

"He's a wonderful person... You can't take anything away from his initiative, his fortitude and his love of children and helping people," Coverdale said.

"It was a real surprise to receive that award from News-Review," said Brown. "I have been thoroughly enjoying each day that God allows me to have above ground. I am grateful for the great times I had at Brookhaven, but none of them compares with the ones I am having right now. I am just awaiting my next blessing of sharing these days with "Ment" when she decides to cash in her time. Thank you for the chance to share this moment with my Bulletin buddies."

In 2004, Brown published a book of poetry and words he likes to live by, an event reported in The Bulletin of February 13, 2004. Now, he still writes poetry. Each year, he provides a special poem at the Community Christmas concert, which is a special gift to the community

from the First Baptist Church choir and family.

Brown's inspiration as a poet comes from the life and change he observes around him: family situations, growing old, nature, current affairs, and his commitment to Christianity. In expressing his experience and hope, he helps many people to hope with him — perhaps his greatest contribution as his community's Public Servant of the Year.

In Robert Brown's own words:

"To bring a smile to a saddened face,

To make our mind free as a bird,

Bring harmony to a tone deaf ear.

God gave us the spoken

word. To warm the strings of a

chilly heart, Make a gloomy day brighter,

To chase the rain clouds from your sky,

God gave us the poetry writer."

— Liz Seubert



BSA Noon Recital, 3/2

Cellist Dmitry Kouzov To Perform at BNL

Dmitry Kouzov, winner of the New York Cello Society's Rising Star Award, will perform on Wednesday, March 2, at noon in Berkner Hall. Sponsored by Brookhaven Science Associates, the company that manages the Lab, the concert is free and open to the public. All visitors to the Lab 16 and older must bring a photo I.D.

Kouzov has given solo performances on five continents with orchestras and in recitals He was awarded First Prize at the International Beethoven Competition in the Czech Republic, and is a two-time laureate of the International Festival-Competition "Virtuosi of the Year 2000" in Russia. His credits include performances in St. Petersburg Philharmonic Halls, the conservatory halls of Moscow and St. Petersburg, and the Mariinsky Theater. Kouzov made his New York orchestral debut at Alice Tully Hall in 2005, conducted by Maestro Raymond Leppard. He has since made recital appearances in New York at the 92nd Street Y and Bargemusic.

A consummate chamber musician, Kouzov has collaborated with Joshua Bell, Krzysztof Penderecki, Donald Weilerstein, and the Pacifica Quartet, among others. He is a founding and active member of the awardwinning Manhattan Piano Trio, with which he has toured extensively throughout the United States. Jane Koropsak

Defensive Driving Course: Two Parts, 3/7 & 14

The next six-hour Defensive Driving (Point & Insurance Reduction) course will be held in two parts on two Mondays: Monday, March 7, in the Bldg. 490 Large Conference Room, and Monday, March 14, in Berkner Hall, Room B. 6-9:15 p.m. The course is open to BNL, BSA and DOE employees, BNL facility-users, contractors and other guests, and their family members. The cost is \$33 per person. Preregistration is required. To register, call Ed Sierra, Ext. 4080 or 821-1013, and leave a message. Or take a New York DMV approved course (Use code: "SAVE10" for \$10 discount) online: http:// www.lidrivesafe.com/.

The Ballroom Dance Club will start a new series of lessons on Wednesday, March 2, in the North Ballroom at the Brookhaven Center. More information is available online: http://www.bnl.gov/bera/ activities/dance/default.asp.

CALENDAR

Today, Friday, 2/18

BJ Membership Drive

11 a.m.-2 p.m. Berkner Hall lobby. Get a 14-month membership for \$43.50, instead of 12 months for \$50. Get a 14-month BJ's Rewards membership for \$86.90, rather than 12 months for \$90.

WEEK OF 2/21

Monday, 2/21

Presidents' Day Holiday

The Lab will be closed for the holiday. No Bulletin on 2/25.

Wednesday, 2/23

*BNL Blood Drive

9:30 a.m.-3 p.m. Brookhaven Center. Blood is needed. See p.2.

Thursday, 2/24

*BWIS Super Salad Lunch, Raffle

Noon. NSLS Bldg. 725 Seminar Room. All are welcome; bring salad ingredient. See p.4.

— WEEK OF 2/28 —

Monday, 2/28

*Children's Summer Camp Info Mtg

Noon. Berkner Hall, Room C. All are welcome. See below.

IBEW Meeting

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

Wednesday, 3/2

Smoking Cessation

Noon-1 p.m. Berkner Hall, Room B. Jude Treder-Wolff, psychotherapist, will talk on resources for smokers who wish to cease smoking. Free. Pre-registration required: Contact Michael Thorn, Ext. 5612, mthorn@bnl.gov.

*BSA Noon Recital

Noon. Berkner Hall. Cellist Dmitry Kouzov. See left.

Friday, 3/4

*BSA Distinguished Lecture

p.m. Berkner Hall. Xiaoliang Sunney Xie, the Mallinckrodt Professor of Chemistry & Chemical Biology, Harvard University, will speak on "Life at the Single Molecule Level." The talk is free and open to the public. See p.1.

Adult Swim Classes

BERA is offering swim classes for adults on Wednesday evenings, March 2-April 20, 5:30-6:30 p.m., \$80. Classes are open to all employees, those with visitors/guest appointments, users, retirees, and their immediate family members who are at least 18 years old. Register by 2/25. For more information, call Sue Dwyer, Ext. 3496 or the Recreation Office, Ext. 2873.

BERA Recreation Programs for Children

Applications for BERA's recreation programs for children this spring and summer are now online at www.bnl.gov/bera and also available at the Gym office, BERA Store, & Rec Hall.

Camp Informational Meeting: Mon., 2/28 at noon in Berkner Hall, Room C

BERA Spring Break Recreation Program: 4/18-22 for ages 6 to 11. Applications and payments due by 4 p.m., 3/4.

Camp Expo: Thurs., 3/10, in Berkner Hall lobby

BERA Summer Recreation Program: 7/6–8/26 for ages 5 to 13. Applications and deposits due by 3/25.

BERA Recreation Swim Program: 7/11-8/26. Applications and payments due by 6/3.

BERA Trips

Buy tickets for the following trips at the BERA Store in Berkner Hall, weekdays, 9 a.m. to 3 p.m. Tickets are non-refundable and some restrictions apply. Coaches leave BNL from the Brookhaven Center.

Hunter Mountain, NY. Wednesday, March 2. Leave BNL at 5 a.m. and leave the mountain at 4:30 p.m. Bus and lift ticket: \$60; bus, lift ticket, and rental: \$89; lesson, limited-area lift ticket, and rental: \$89; or bus only for cross country skiing or snow shoeing with your own equipment: \$25.

Mohegan Sun, CT. Saturday, March 26. \$40 per person. 55 seats are available. Ages 21 & over only — must have valid photo ID or passport with printed birth date. Departure times to be announced. If more convenient, you may meet the group at the ferry dock in Port Jefferson.

Ballroom Dance Classes

BWIS Super Salad Lunch, 2/24

Brookhaven Women in Science (BWIS) invites all BNLers to its "super salad" lunch and raffle to be held on Thursday, February 24, at noon in the seminar room in Bldg. 725. All who attend are asked to bring one salad ingredient to help create a "super salad" — the main dish to be served at lunch. BWIS will provide the greens, coffee, and cookies. BWIS and the Community Relations Office will donate prizes for the raffle, including \$25 gift certificates for local restaurants.

The primary goals of BWIS are to advance women in their careers and promote science. BWIS is supported primarily through yearly members' dues and contributions from BSA. The entire BNL community — women and men, scientists and nonscientists, are invited to join BWIS. The yearly dues are \$10 for BNL/BSA employees, and \$5 for all others (associate members). For more information, see the BWIS website: www.bnl.gov/BWIS/default.asp.

If you would like to attend the event and bring a salad ingredient, and you have access to Outlook, go to the BWIS folder to list the ingredient that you will donate. If you need help, contact Vinita Ghosh, Ext. 6226, or ghoshyj@bnl.gov. — Diane Greenberg

Volunteers Greatly Needed, 3/19 BNL to Host Middle School Science Bowl And Hydrogen Fuel Cell Car Challenge

Everyone, including family and friends, is welcome to volunteer aid on Saturday, March 19, when BNL will host a Middle School Science Bowl and Hydrogen Fuel Cell Car Challenge.

Volunteers with science backgrounds are especially needed to act as moderators and science judges. Other positions required include timekeepers, scorekeepers, rules judges, runners and general crowd control. For more information or to volunteer, please contact Catherine Osiecki, *cathyo@bnl.gov* or Ext. 3054.

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

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

LABORATORY RECRUITMENT - Opportunities for Laboratory employees only.

LABORER (LG-3) - Performs wide variety of manual labor tasks on roads, grounds or building maintenance. May perform unskilled tasks assisting mechanics. Operates such equipment as power lawn mowers and pneumatic tools. Site Services Division. If interested please submit transfer form to Diana Hubert, HR Division, Bldg. 400B.

OPEN RECRUITMENT – Opportunities for Lab employees and outside candidates.

FIREFIGHTER/EMT - Requires five years of progressive experience in a fire department, five years as a New York State EMT-D, and Suffolk or Nassau County or NY State Certification as a motor pump operator on a Class A pumper. In descending order of importance, the following criteria will be used for selection in the event that two or more individuals meet the above criteria: certified OSHA Hazardous Materials Technician; Certified in Confined Space Rescue; current line officer in home department; and possession of an associate degree or higher in fire protection technology. Must be willing to work shifts at the completion of training period. Laboratory Protection Division. Please apply to Job ID #15651.

Motor Vehicles & Supplies

Motor Venicles & Supplies

99 LEXUS RX 350 – 9.7K mi. absolute mint, Ithr, V6 3.5 ltr eng, a/t 5-spd, awd, Nav Sys, mroof, heated seats. \$36,000 neg. Ext. 7278.

07 BMW 335I – 52K mi. 425hp/480tq, too much to list, super clean, warr until 6/2013 or 100k. \$23,500 neg. Mark, Ext. 3970.

04 HONDA ACCORD EX – 106K mi. 4 dr, 4 cyl. Silver. A/t. ABS. Great condition. \$9,275 neg. Sachin, Ext. 2197.

04 HYUNDAI ELANTRA GT – 84.5K mi. 5 spd, a/c, c/c am/fm/mp3/cd, fog lights, well maint, excel cond. \$3,900 neg. 466-2001.

02 HONDA S2000 – 27K mi. 6spd, yellow convertible, mint. \$16,000. 681-3015.

98 CHRYSLER SEBRING LXI – 156K mi., moonroof, leather, photos avail. \$2,300 neg. Rich, Ext. 5684, jonesr@bnl.gov.

97 FORD ESCORT WAGON - 88K mi.

runs well. \$900, 878-4246.

92 MERCURY COUGAR - Best Offer & it is yours. \$100. 516-456-4525.

68 CHEVY PU LONG BED CAMPER SPCH –100 mi. new firs drs rockers, trail arms tran turbo set for trailer. \$2,500 neg. 553-0769. RIMS W/TIRES – 4 18" RT6 Enkei 360 Perfct Rims; 6 Lug; used on '99 Dge Durango, under yr old, ask/\$700, 813-6583. TIRES – 2/P20565R15 mounted on 5 bolt steel rims \$15/ea. Steve, Ext. 4719.

Farewell Gathering

GAIL WILLIAMS – Friends are invited to a memorial gathering for the late Gail Williams, Sun, 2/27, 2-4 p.m. at her home, 7 Brewster La, Bellport. Please RSVP to Graheme Williams, Graheme@Optonline. net. Also, Brookhaven Women In Science, formed while Gail was Office of Science Personnel Manager at BNL, is collecting for the R. Chasman Scholarship in Gail's memory. Please send donations to BWIS, PO Box 883, Upton, NY 11973.

Furnishings & Appliances

COMPUTER DESK – Custom L-shape. Cherry wood finish w/drawers. Pics available. \$50. 878-2425 or storan@bnl.gov. COMPUTER HUTCH – 31Wx68Hx 21D, 2/drs, top shelf, roll out for keybrd, drawer, \$75, pics, loc in Ridge. x2017, bkosciuk@bnl.gov. PORTABLE WASHING MACHINE – GE, like new. easily rolled, connects to sink faucet. pd. \$699, ask \$200. 708-4778. QUEEN BOX SPRING – like new, used for

6 mos,\$40. Matthew, mvescovi@bnl.gov.

Audio, Video & Computers 19-IN TV - Craig w/remote in gd working

cond/\$10. Tony, Ext. 8450. 27" RCA TV – w/remote, works fine! \$25. 289-9727.

DELL AXIM 30 – w/sync and all accessories & instructions/\$50. Anita, 874-3606 or anita22@optonline.net.

HDTV, STEREO, DVD - HDTV 4yr, Toshiba-Insignia; Streo w/3 cd slots, DVD plyr, all w/ instrucs/remtes/\$125/all/obo/. 874-3145.

IPOD SHUFFLE – 2GB, silver, brand new, box unopend, \$45; Lexmark 3200 printer, \$20, x 2716, 878-2425, storan@bnl.gov. MACBOOK PRO LAPTOP – Apple, Core Duo 2.53 GHz, 4GB mem, 250 GB HD, Snow Leopard inst. \$1000 neg. Eli, Ext. 5910.

TELEVISION - 19" Magnavox crt, gd cond \$15. Steve, Ext. 4719.

TV WALL MOUNT - Full Motion for 37" to 56" flat scrs. Sanus VMAA18. New in box - never opened. Best offer. 375-2680. USED VIDEO GAMES - Xbox & PS2 video games \$2/ea excel cond email for list. 278-4568 or bryanbelifting@yahoo.com.

Lost & Found

SCARF – blk and grey striped, lost on Feb 10 between bldg 911 (C-AD) and rear prkg lot of bldg 400. If found, would appreciate return. Jonathan, Ext. 7872.

Sports, Hobbies & Pets

70 GAL FISH TANK W/STAND - Red Ear slider turtle, many extras ask/\$150 will help transport. Rich, Ext. 5684, 872-5074.

80 LB. HEAVY BAG, SWIVEL, GLOVES - like new cond, everlast Ta 80, gloves sz L/XL, pd/\$140 \$50/all. William, Ext. 3644.

BEDROOM SETS - qu sz: bd, mattrs, drssr, nightstd/\$1500; girls: twin bd, mattress, n/std, drssng tbl/\$600. Ext. 3639.

KENNELS - med deluxe vari kennel #21807, 23"x14, 5"x12", \$15; Midwst i-crate folding #1530, 30"x19"x21", \$20. Ext. 4719.



Now that the weather seems to be improving, The Bulletin dares to feature this romantic photo by Lab Photographer Roger Stoutenburgh that incorporates two controversial BNL topics — snow and geese!



So, our breakfast time together is the highlight of my week. Manga, my friend. Toni Sveltz – No matter what life brings, I will always love and cherish you, my forever partner. Thank God for you.

K, It started with a look and feeling, I never had before, And when I saw that crooked smile, I knew I needed more. And if I had one wish to make, You know that it would be, For you to always hold my hand, and spend your life with me. B Cupcake, My always valentine. My fondest dreams. My best kisses. Give the girls a

hug for me. Love - Your Associate

Missed you every second you were away. You're the best, love you always. Bob

Missed you every second you were away. You're the best, love you always. Both Dear NML: You're still my favorite Valentine and always will be. Love RJL

SKI BOOTS – women/jr, lg, Comp70, sizes 7, ask/\$40, orig/\$300, nr. new. Ext. 7179.

VIOLIN – Student's full sized violin and bow, \$20. Ext. 4159 or korach@bnl.gov. ZUMBA CLASS FOR TUESDAY, 2/22 – Cost of class, \$5. Janine, Ext. 2431.

Happenings

FUND RAISER – Pancake Breakfast & Chinese Auction, Sun, Mar. 6, 8-12, for Ronnie Reisig Scholarship Fund at Camp Pa-Qua-Tuck, Mtk Hwy, Cntr Moriches, Spec. Needs Smmr Camp for Children w/ Disabilities. \$5 adult, \$4 srs, \$3 kids under 10. Buy at door or call 678-2457.

PHOTOGRAPHERS - Spend day with Canon Explorer of Light Lewis Kemper at Suffolk County Community College, on Sun, April 3, 8:30a-4p. Organized by the Photographic Federation of Long Island. Tickets are \$30. Contact Joe. Ext. 3584.

Miscellaneous

CELL PHONES – AT&T Samsung Propel & LG Shine, used about 1 year. Gd cond. \$50/ea. 878-2425 or storan@bnl.gov. CRIB BEDDING SET - FROGS – Pastel grn, yllw, blue, other. Sheets, comforter, skirt, frog mobile, windw valnce. \$50. Ext. 3328. CRIB MATTRESS – \$50. mb@bnl.gov.

FISHER-PRICE POWER WHEELS - Harley D Motorcycle Model, Ride on top, excel cond, batt chrgr, \$100. sbronson@bnl.gov. GPS - Jensen NVX-200 GPS, almost brand new/\$50. Kuanping, Ext. 4675 or kgong@bnl.gov.

JEWELRY – handmade, earrings/pins \$5/ea; necklaces, \$10/ea. Pewter finish tble-top pic frame for 12 pics. \$5. Ext. 7114. LIRR OFF-PEAK TRAIN PASS – 4 one-way passes on Ronkonkoma line to Penn St. Must use by 2/28. sk/\$32/all. Ext. 7226. PEG PERGO STROLLER – Taupe color. \$75. Ext. 3328 or mmccabe@bnl.gov. POWER/CHILL – Hot/Cold Thermoelectric Cooler. 40 quart. \$50. 878-2425. PUSH SCOOTER, HARLEY D – H.D. "Lights and Sound" 3 whl scooter, batt operated, gd cond, ask/\$20. sbronson@bnl.gov.

gd cond, ask/\$20. sbronson@bnl.gov.

ROOCASE – Exec e-Book Flip Case.

Leather/Storage Flap/Magnetic Closure.

In box, unused, \$25. 878-2425.

TICKET, MET ORCHESTRA – Carnegie Hall, Sun., 4/10, 3 p.m., 2nd. tier cen.rgt box 22, seat 3, \$100. helenconn@verizon.com.

WATER HEATER – elec, 80 gal, new in carton, \$400/neg. Lou, 277-2671.

Tools, House & Garden

UTILITY TRAILER - IMG00612-20110207-1429.jpg 16' X 6' hvy duty dual axle enclosed, \$3000. Frank, 516-903-0020.

Free

AM/FM RADIO CD CHANGER – JVC AM/FM, 5 slot, minor problems. 949-4046.

Wante

ADOPT-A-PLATOON – Monetary donations gratefuly accepted for mailing shipments to military overseas and to send packages to BNL family members. Thank you. Joanne, jrula@bnl.gov.

BNL FAMILY MEMBERS IN MILITARY - If you have a family member that has been deployed overseas, please contact Adopt-a-Platoon so we may send them a goodie package. Joanne, jrula@bnl.gov.

BURR COFFEE GRINDER – Would someone donate a used grinder in gd wking cond., w/burr milling? Marie, Ext. 8367.

CALCULATOR - TI-84, for student. Michael, Ext. 1388.

DONATIONS OF DOG/CAT FOOD – for pets of struggling families. Collect'n bins: Bldgs. 134, 400, 725, 510 (x5864) 901, 902. Kathleen, Ext. 3161.

MAGIC CARDS – gathering playing cards for my sons. Ext. 4797 or lvogt@bnl.gov. TAXATION PROFESSIONAL – For individual tax return preparation, experienced with issues associated with non-US citizens. Wayne, Ext. 5936 or wlewis@bnl.gov.

For Rent

BAITING HOLLOW – renov, furn studio apt, sep eik, new tiled ba, priv ent, own therm, util/int/HD incl, no smkg, nr beach, want quiet tenant. \$905/mo. Lisa. 804-8117.

CENTER MORICHES – new studio apt, new crpet, ba, kit appli, sing. occp, no smkg/pets, watervw, can be furn, elec, water, heat/w'less,int incl, avail 3/1. \$900/mo. 834-0047.

CALVERTON – 3 bdrm hse, partially furn, roomates needed, 10 mins to Lab N/ ent, util shared, no smkg/pets. \$700/mo. Thomas, Ext. 7330, 807-1380 or trusso@bnl.gov.

COMMACK - 1 bdrm bsmt apt, ligh/bright, granite in bath/kit, a/c, land-scaped, fen yd lg pantry. \$995/mo. 567-5631.

FARMINGVILLE – Ig 14'x16' furn, rm in shared house, incl, wifi/phone/cable, elec, 15 min to BNL and SBU. \$595/mo. Ben, 513-8275 or benonium@gmail.com

FARMINGVILLE – 1 bdrm grd flr apt, kit/l/rm combo, own heat control, cac, utils, cable, wireless int incl, no smkg/pets, plus 1 mo sec. \$900/mo. Tom, Ext. 4866, 974-0770.

MASTIC - furn, 1 bdrm, attach/priv/full bath, hi spd int, tv, share kit or m/wave util incl, nr LIRR, shop, no smkg/pets, 1 mo sec, \$800/mo; 335-4907.

MASTIC - 1 bdrm/kit l/r combo, priv full bath, hi spd int priv ent, quiet area, util incl, nr LIRR, no smkg/pets, walk to shop, 8 min to Lab, 1 mo sec, \$700/mo. 335-4907.

NESCONSET - Apt, 2nd. Ivl, 2 lg BRs,

kit'ette, office area, full ba, rec. paint & laminate wood floors. Incl utils, cable, i/net, offst. prkng. \$1,250/mo + sec. 516-330-7833. PORT JEFF – Contemporary Victorian, walk to shops, school, harbor. Grt rm w/fpl, 4 BR, 2ba, EIK, hot tub, IGP, CAC. \$2,750/mo. plus utilities. 804-4662.

PORT JEFFERSON – 1 br, 2nd flr, Fairfield, Apr 1st avail. \$1,325/mo. Kuanping, Ext. 4675 or kp.gong@yahoo.com.

RIDGE – 1 bdrm, 1 bath, grd level entry bsmt apt, priv drway, use of yd, Ig windows, incl util/cable/int, avail March 1, 1/ mo sec req. \$1,100/mo. 965-2039.

RIDGE – 2Br Apt \$950/mo.4 mi to Lab.Pvt ent, off-st. parking. own thermo., u util/int/ HD incl. 1pers or couple only. no smkg/pets. Ref Avail. \$950/mo. 516-885-9113.
RIDGE – 3 bdrm/1 bath cozy hse, quiet, 3.5 mi to BNL, hardwd flrs/part, bsmt/w/d/updated appli, no smkg/pets, please, u-pay utils. \$1,600/mo. 834-9176.
SHIRLEY – furn 1/bdrm apt, v/clean, priv ent util/cable/int incl, except cooking gas. \$900/mo. Lucian, 682-7024.

SHOREHAM – 4br contemp, 2.5 bath, d-gar, gd schools, quiet beach comm w/beach access, 15 min from Lab. \$2,350/mo neg. Ext. 2216, 744-2190.

SHOREHAM – 2 bdrm 2nd flr apt, outside ent. remodeled, new bath/carpet/wood flr/kit w/skylight, crdit chck & ref, 1 mo rent + 1 mo sec, no smkg/pets. \$1,200/mo. 219-3666.

For Sale

CENTER MORICHES – 4 lot subdivison. 1-1acre + old house. 1-2acre 2-1.7 acres. Will sell all or sep. Will hold mortgage on some. \$650,000 neg. George, 878-1178. MANORVILLE – Silver Ponds best priced Brookwood Ranch, cac, 2brm, 2 full ba, Ir/dr, new wd flrs, w/w carpet bdrms, new kit cab, 2 car gar, all ammen, nr Lab, 804-6262. SHOREHAM NORTH – 5 bdrm ranch, 3 bath, wood flrs, bsmt w/bdrm apt, full windows, pos M/D, pool, prvt beach. \$350,000. 769-6162, li98house@gmail.com.

On Site Service Station

We provide oil or battery changes, all sorts of vehicle maintenance and repairs, New York State inspections, all done conveniently while you are at work. Gas and specialty services such as windshields and collector car service also available. Call for an appointment, Ext. 4034.



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