

Science Writer K.C. Cole To Give Talk On Physicist Frank Oppenheimer, 10/13

Science writer K.C. Cole will give a talk based on her recent book, *Something Incredibly Wonderful Happens: Frank Oppenheimer and the World He Made Up*, on Tuesday, October 13, at 4 p.m. in Berkner Hall. Sponsored by Brookhaven Women in Science, the talk is free and open to the public. Visitors to the Lab age 16 and over must bring a photo ID.

Cole will discuss the extraordinary life of her late mentor, Frank Oppenheimer (1912-1985), physicist, cattle rancher, teacher and founder of the Exploratorium, a hands-on museum of science, art and human perception in San Francisco. He was the younger brother of J. Robert Oppenheimer, known as “the father of the atomic bomb.”

Frank Oppenheimer was, in Cole’s words “a pacifist building an atomic bomb, a physicist exiled from science because of his outspoken efforts to stop the madness, a New York Jew raising cattle and teaching high school in the Colorado mountains.” These experiences, as well as his lifelong passion for art and science, became the basis for a “museum of human awareness”—the Exploratorium, which has been imitated all over the world.

Cole will recount not just Frank Oppenheimer’s journey, but also the story of how she herself, a young political writer who thought an accelerator was a gas pedal, stumbled on Oppenheimer’s Exploratorium,



fell in love with physics, and got hooked on science for life.

K.C. Cole is a long-time science writer for the Los Angeles Times and currently a professor at the University of Southern California’s Annenberg School of Journalism. She is the author of eight nonfiction books and articles in publications, including *The New Yorker*, *The New York Times*, *The Smithsonian*, *Newsweek*, *Esquire*, and *The Washington Post*. Her work was featured in the *Best American Science Writing 2004 and 2005* and *The Best American Science and Nature Writing 2002*. Cole hosts an irregular series of events called “Categorically Not!” exploring connections among science, art, politics and other topics at the Santa Monica Art Studios. She is also a year-end commentator for National Public Radio’s “Science Friday” and BBC’s “World Service.” — Diane Greenberg

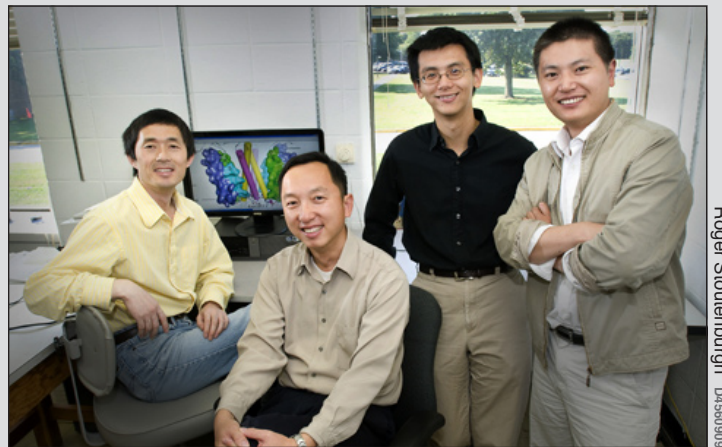
High-Res View of Zinc Transport Protein Reveals shape-shifting atomic interactions; suggests mechanism and possible drug targets

How much difference can a tenth of a nanometer make? When it comes to figuring out how proteins work, an improvement in resolution of that miniscule amount can mean the difference between seeing where atoms are and understanding how they interact.

Case in point: New, improved-resolution views of a zinc transporter protein deciphered at BNL provide not just a structure but also a suggested mechanism for how cells sense and regulate zinc, an element that is essential for life, but which must be kept at a steady state to avoid problems like seizures, diabetes, and possibly Alzheimer’s disease.

The new findings, published online on September 13, 2009, by *Nature Structural & Molecular Biology*, also suggest targets for zinc-regulating drugs, and may even advance the understanding of similar zinc-regulating enzymes in plant chloroplasts with possible implications for biofuel production. The work was supported by the National Institutes of Health, the Office of Basic Energy Sciences in the DOE Office of Science, and by BNL’s Biology Department.

“Our goal is to reveal atomic interactions in a protein structure to understand the chemistry that underlies the protein’s biological function,” said Dax Fu, Biology Department, who led the research. “With this



Zinc transport protein researchers: (from left) Jin Chai, team leader Dax Fu, Wei Lin, and Feng Yang, all of the Biology Department

structure, we can begin to understand the mechanism of zinc transport at a chemical level.”

The structure was revealed using x-ray crystallography at beamline X25A at BNL’s National Synchrotron Light Source (NSLS), a source of intense x-ray, ultraviolet, and infrared light. By studying how x-rays bounce off crystallized samples of a protein, scientists can reconstruct the location and orientation of the protein’s atoms in three dimensions.

The BNL team had previously used NSLS to solve a zinc transporter protein structure at lower resolution. (See www.bnl.gov/bnlweb/pubaf/pr/PR_display.asp?prID=07-89.) To achieve the new-and-improved structure, the scientists added mercury atoms to stabilize protein packing in the

crystals. This increased the resolution of their x-ray vision by a mere angstrom (tenth of a nanometer). But because it brought the overall resolution of their structure to just below 3 angstroms — the point at which individual atoms begin to become visible — it enabled the scientists to see the protein in action as it bound to and transported zinc ions.

Using fluorescent probes, the scientists also studied how the protein changed shape in response to zinc binding. They tested how changes to structural elements of the zinc transporter protein would affect its ability to transport zinc.

Together, these experiments suggest an auto-regulatory mechanism for zinc transport: Zinc binding within the cell...

See *Proteins* on pg. 2

It’s down! BNL’s plans to replace old offices and barracks left over from Camp Upton with new buildings designed for a cutting-edge scientific laboratory took a leap into the future as Building 475, known from its shape as the “H” building, was taken down to be returned to grass and trees.

Lanny Bates, Assistant Laboratory Director for Facilities & Operations (F&O), commented, “I am proud of the F&O team that worked on this project. It takes a wide range of skill sets to do something as apparently simple as knock down an old building and do it to be safe and environmentally sound. It really is a process of ‘deconstruction.’ The demolition of Building 475 was efficient and well executed. The team did a great job!”

The Site Services Division, led by Manager Tom Lambertson, along with General Supervisor Rich Jones and Heavy Equipment Supervisor John Gottlieb, is managing this project, using Lab operating funds.

“We have a key word in this and every project: ‘Safety,’” said Lambertson. “Demolishing a building has many aspects that have to be considered, and everything we do begins with safety.”

“Once a building is labeled for demolition, it goes through an extensive process before any bucket hits its walls,” said Jones. First, historical data are reviewed through what are known as



The H-Building Passes

“Facility Use Agreements.” Then the “Exit Readiness Evaluation” takes place. In the case of Bldg. 475, Richard Travis of the Safety & Health Services Division organized this evaluation in

December 2008. Then, following normal procedure, all findings were entered into the BNL Assessment Tracking System, which tracks all outstanding requirements to closure. Rich

Scheidet of the Modernization Project Office led that extensive effort.

Bldg. 475 was not expected to be demolished until 2012, but with recent money avail-

able, the Site Services Division was tasked to take it down by the end of this fiscal year 2009.

“Too many people were involved to list individually,” said Jones. “But without the commitment and efficient team work of all, this task could not have been accomplished on time, within budget and without any incident, which continues our excellent safety record of the past eight years.”

Groups in the Facilities & Operations Directorate who were involved with this demolition work include: the Modernization Project Office; Facility Operations Office; the Environment, Safety, Health, Training and Quality group; the Business Operations Division; the Laboratory Protection (Fire, Security) Division; the Maintenance & Fabrication Services Division (Electrical, Plumbing, A/C, Asbestos/Steam, Sheet Metal); the Energy & Utilities Division (Electric Distribution and Wastewater Treatment groups); the Staff Services Division, and the Site Services Division (Custodial, Roads/Grounds, Rigging, and the Heavy Equipment Mechanic Operator (HEMO) group. The HEMO group operates all the equipment to take down and package the building, grade the area and get it ready for seeding by Grounds personnel.

— Liz Seubert

For “madeleine” memories about the H-Building, see pg. 2



The H-Building Memories Do Not Fade

To some of the more recent inhabitants of the “H” Building who suffered from its inconveniences, which grew greater as time went by, its passing is good news. But for others — especially the now-scattered remaining members of the glorious National Center for the Analysis of Energy Systems or the seismic study group that once filled the wings of the H with workers — many of whom might now be considered of unusual eccentricity — the great memories of the 1970s and 1980s will never die. Grass and trees are fine, but for some of us who might eventually brave the ticks to stroll in the new “parkland,” echoes of running footsteps in long hallways will still ring in our ears, with the faint accompaniment of frantic cries of “Can anyone lend me a tie? I have to go to DC this afternoon!” Visions of vivid scenes from the past will for ever reignite long-ago laughter, disappointments, funding triumphs, the seething frustration engendered by the primeval fax machine or the malfunctioning copier (“It’s stopped working again? Kick it in the drum!”), the bitter cold Mondays of the prototype heat pump radiator era, the enticing aroma of homemade soup that refueled the team during projects that stretched through the weekend. All draw us together in remembrances that the mere obliteration of a building can never erase. — Liz Seubert, past cave-dweller of Bldg. 475.

Arrivals & Departures

— Arrivals —

Tanya Collins.....NNS
Joanne Sommaruga HROM

— Departures —

Tommy Hofmann CMP&MS
Gregory Soyez Physics
Barry L. Winn CMP&MS
Gennady Logvenov CMP&MS

Occupational Medicine Update: Flu Shots Available Starting 10/13

The Occupational Medicine Clinic will offer the influenza (flu) vaccine to all full-time and part-time-eligible Lab employees from Tuesday, October 13, through Friday, October 16. Shots will be given at the Clinic, Bldg. 490, according to last name during the following times:

| Time | Last Names |
|-----------------------|------------|
| 9:30 a.m.–10:45 a.m. | N to S |
| 10:45 a.m.–11:45 a.m. | H to M |
| 1 p.m.–2:30 p.m. | A to G |
| 2:30 p.m.– 4 p.m. | T to Z |

Anyone planning to receive a flu shot should wear a short-sleeve shirt at the time of vaccination. Please do not ask to schedule an earlier appointment — those that cannot attend the scheduled times will still be available to receive the shot through December, or until the Clinic runs out of vaccine supplies. Retirees, students, contractors, guests and employee family members should obtain flu shots from their personal physicians. If you have any questions regarding the flu vaccine, call to speak with a nurse, Ext. 3670.

Employee Internal Communications Survey

Here’s your chance to shoot the messenger! Media & Communications and Web Services are interested in getting your feedback on how well we’re facilitating the Lab’s internal communication efforts. Do you find our communications informative and trustworthy? Have internal communications helped you develop a good un-

derstanding of the Lab’s current mission and research priorities? What can we do to improve communications vehicles like The Bulletin, the Monday Memo and the @brookhaven TODAY intranet website? To help answer these and other questions, we’re asking all Lab staff to complete this survey by 10/9. Survey submissions

_____ The Lab’s overall budget picture
_____ The Lab’s research capabilities and scientific advances
_____ Benefits
_____ Compensation and bonus programs
_____ Laboratory success stories
_____ The Blueprint
_____ Government affairs affecting the Laboratory
_____ Sensitive issues or events affecting the Laboratory

How long have you worked at the Laboratory?
_____ <1 year
_____ 1–5 years
_____ 5–10 years
_____ 10–20 years
_____ >20 years

Overall, how satisfied are you with internal communications at the Laboratory?
_____ Very satisfied
_____ Satisfied
_____ Neutral
_____ Dissatisfied
_____ Very dissatisfied

Which best describes your impression of communications within the Laboratory?
_____ Keeps us fully informed
_____ Keeps us fairly well informed
_____ Keeps us adequately informed
_____ Gives us only a limited amount of information
_____ Doesn’t tell us much at all about what’s going on

How do you feel about the information you receive?
_____ I can almost always trust it
_____ I can usually trust it
_____ I can trust it about half the time
_____ I usually can’t trust it

How would you rate your knowledge of the Laboratory, its strategies, and its ongoing accomplishments?
_____ I know the Laboratory very well
_____ I know a fair amount about the Lab
_____ I know just a little about the Lab
_____ I know almost nothing about the Lab
_____ Knowing about the Laboratory is not important to me

Which of the following items do you believe it is most important for you to receive communications about: (select up to three)
_____ The Lab’s strategies for the future

_____ The Lab’s overall budget picture
_____ The Lab’s research capabilities and scientific advances
_____ Benefits
_____ Compensation and bonus programs
_____ Laboratory success stories
_____ The Blueprint
_____ Government affairs affecting the Laboratory
_____ Sensitive issues or events affecting the Laboratory

What other topics do you feel are important for you to know more about and would like the Laboratory to include in future communications? (optional)

Which of the following communications vehicles do you read on a regular basis? (select all that apply)
_____ The Bulletin
_____ Monday Memo
_____ The Laboratory’s internal homepage
_____ Broadcast e-mail
_____ None of the above

How much of the Monday Memo do you read?
_____ Generally read all of it
_____ Read most of it
_____ Read some of it
_____ Only skim through it
_____ Just the Comments & Queries section
_____ Just the Director’s Message
_____ Don’t read it at all

How would you rate the Monday Memo’s value to you?
_____ Excellent
_____ Very good
_____ Good
_____ Fair
_____ Poor

Would you be more likely to use the Monday Memo’s online article comment form if you could do it in a completely anonymous fashion?
_____ Yes
_____ No

We mainly wish to receive feedback from current employees and prefer that they complete the survey online at <http://intranet.bnl.gov/survey/communications/>. Retirees, do

Which parts of The Bulletin do you read? (select all that apply)
_____ Science/research/event news
_____ Event/lecture notifications
_____ HR updates (changes in benefits, etc.)
_____ Service anniversaries
_____ In memoriam
_____ Arrivals/departures
_____ Employee features
_____ Calendar of events
_____ BERA coverage
_____ Classified ads

What do you like best about the Laboratory’s internal communications?

From which of the following sources do you receive most of your information about what is going on at the Laboratory? (select up to three)
_____ The grapevine/rumor mill
_____ Laboratory internal homepage
_____ The Bulletin
_____ Monday Memo
_____ My supervisor
_____ Group meetings at our work location
_____ Broadcast e-mail
_____ Outside news organizations
_____ Employee meetings

If you had to choose only three sources, by which of the following would you prefer to receive most of your information about what is going on at the Laboratory? (select up to three)
_____ The grapevine/rumor mill
_____ Lab internal homepage
_____ Monday Memo
_____ The Bulletin
_____ My direct supervisor
_____ Department/Division management

send in paper feedback, even if late. Send paper surveys to mail stop 400C, c/o Peter Genzer or Gary Schroeder. — Peter Genzer & Gary Schroeder
Note: For this survey, “communications” means official Lab information delivered via print, web, or broadcast e-mail, or transmitted via all-hands meetings or “brown bag” information sessions.

How well does your manager or supervisor keep you informed of key Lab initiatives and decisions?
_____ Laboratory leadership
_____ Group meetings in my Department/Division
_____ Broadcast e-mail
_____ Online videos
_____ “Brown-bag” employee meetings

Do you feel you are provided with sufficient opportunities to share your ideas and views with the senior Lab leadership?
_____ Excellent
_____ Very good
_____ Good
_____ Fair
_____ Poor

Did you look at the Lab home page today for any reason?
_____ Yes
_____ No

If you looked at the Lab home page today, what information were you looking for? (optional if you answered “No” above)

Did you know that the Laboratory has a YouTube channel on which videos about Lab research and events are posted?
_____ Yes
_____ No

Would you visit a BNL Facebook page if the Laboratory had one?
_____ Yes
_____ No

Do you have any suggestions to help improve the communications you receive or how you receive them? (optional)

Proteins from pg. 1

...triggers hinge-like movements of two electrically repulsive portions of the protein that lie within the cell’s interior, which results in a conformational change in the portion of the protein that traverses the cellular membrane. So when zinc levels inside the cell rise too high, this shape shifting somehow pushes zinc ions through the membrane and out of the cell.

“Exactly how the protein pushes the zinc ions through the membrane has yet to be determined,” said Fu, who added that this will be a focus of future research.

Conceivably, he added, drugs that bind to the zinc-sensing portions of the pro-

tein could be used to modulate zinc transport activity and help adjust zinc levels as possible treatments for diseases such as seizure disorders or diabetes. Brookhaven Science Associates, which manages Brookhaven Lab, has filed a patent application related to this work.

In addition, because other metal transporting proteins share similar architecture with the zinc transporter protein, the findings from this study may advance the understanding of other medical disorders linked to metal imbalance, as well as the development of possible treatments for those conditions.

Furthermore, this work may have implications for

researchers trying to improve the prospects of biomass production in plants, an essential component to the development of biofuels. Zinc is an essential co-factor in a host of reactions in chloroplasts, the site of photosynthesis. But as is the case in animals, excess metals can be highly toxic in plants. Consequently, studies to help elucidate zinc-transporter protein function could help scientists understand how plants maintain the delicate balance needed for ideal growth.

Future studies of protein structures at BNL promise to reveal even greater mechanistic detail when a new light source, NSLS-II, opens in 2015. That facility, now

under construction, will be 10,000 times brighter than NSLS. That boost in brightness — and therefore resolution — would be particularly important in the study of membrane proteins, which represent the vast majority of proteins of interest to those developing drugs, but which are also often difficult to crystallize.

“As illustrated by this study, even small improvements in x-ray diffraction resolution can greatly advance our mechanistic understanding of protein function,” said Fu. — Karen McNulty Walsh

See also: Zinc Transporter Protein Structure Deciphered, www.bnl.gov/bnlweb/pubaf/pr/PR_display.asp?prID=07-89.

Blueprint Update From Laboratory Director Sam Aronson

In response to requests from BNL staff for more information on the projects that make up the Blueprint, a set of brief descriptions of all projects has been posted on the Blueprint website, together with the names of the project coordinators and the project working group members. You can access these descriptions at <http://intranet.bnl.gov/blueprint/projects.asp>. As projects move toward rollout, there will be special communications or modifications to these project descriptions. Equally important is the feedback mechanism at <http://intranet.bnl.gov/blueprint/feedback.asp> where employees are invited to ask questions

Organizational Restructuring and Blueprint Communication
Organizational Restructuring (General): Sam Aronson
Environment and Life Sciences Directorate: Fritz Henn and Creighton Wirick
Technology Solutions Portal: Gerry Stokes and Pat Looney
Nuclear and Particle Physics Directorate: Steve Vigdor
Accelerator Science and Technology Organization: Satoshi Ozaki
Computation and Information Service Organization: Tom Schlagel
Office of University Relations: Mike Marx and Doon Gibbs
Communications: Marge Lynch

and provide comments and suggestions.
At present, while project working groups are developing their plans, the steering group is working on a high-level schedule for the Blueprint — taking into account project readiness, the annual planning cycle and funding constraints. The schedule will be ready for discussion in the next month or two.
The Projects
The BNL Blueprint was developed by a Steering Group that included Sam Aronson, Lanny Bates, Mike Bebon, Doon Gibbs, Erik Johnson, Pat Looney, Marge Lynch, and Jim Misewich. The Blueprint cur-

rently comprises 16 separate projects. At this point, each project has a Coordinator (or Co-Coordinators), and a working group. Work has started on developing a charter for each project. The various projects are in different stages of development and readiness to proceed, as noted in the project descriptions.
The plan is to move ahead with project implementation as the individual projects mature to that point; some are at that point now. All projects will be developed to the point where they are ready for implementation. As the work progresses, projects may be split, merged, added, or dropped. Projects

will not be implemented until approved by Doon Gibbs, Mike Bebon, and the Lab Director. If a project is shown to have no value in advancing the Lab's ability to achieve its goals or is shown to have negative consequences that outweigh its benefits, it will be dropped.
If you have any comments or questions about these projects, please submit them via the Feedback page.
The Bulletin here provides a list of the Blueprint Projects, with the Project Coordinator or Coordinators of each. For descriptions of the projects and lists of working group members on each, see <http://intranet.bnl.gov/blueprint/projects.asp>.

Process Improvements
Business Systems: Dennis Newby (ORNL) and Bob Ernst
Environment Safety & Health: Carol Parnell
Human Resources Transformation: Tony Bowman
Infrastructure Strategic Planning and Management: Lanny Bates
Landlord-Tenant Model (best practice facility management model): Lanny Bates
Scientific Appointments: Doon Gibbs
Competitiveness Improvement: Jim Misewich and Mike Bebon
Management by Management Systems: Pat Looney

Barbara Royce Honored By Middle Island Rotary Club

BNL's Barbara Royce, president of Thee Island INN Soup Kitchen of Middle Island, has been named as the Middle Island Rotary Club's 2009 Paul Harris Fellow, in recognition of Royce's 12 years of dedicated service to Thee Island INN Soup Kitchen and its guests.
Operating for nearly 20 years on Route 25 in Middle Island, Thee Island INN Soup Kitchen serves hot, nutritious meals to all who come to the facility on Wednesday and Thursday evenings. In 2008, more than 6,000 meals were served to the soup kitchen's guests, who include single parents and their children, the elderly living alone, working poor, and homeless. Thee Island INN is one of 19 soup kitchens under the auspices of the Interfaith Nutrition Network (INN), which is a not-for-profit, volunteer-based non-denomination social services network on Long Island that was started in 1983 and now feeds some 5,500 people per week.

Named after Rotary International founder, Paul Harris fellowships are awarded annually by Rotary Clubs to club or community members in recognition of their "Service Above Self" to the club or within the community. In honor of the fellow of the year, a Rotary Club makes a \$1,000 donation to Rotary International's Paul Harris Society, which supports charitable projects around the world.
Royce's involvement in the soup kitchen started as a result of an appeal to employees to volunteer at local charities made by BNL during its annual United



Honored by the Middle Island Rotary Club for her dedicated service, BNL's Barbara Royce (second from left), president of Thee Island INN Soup Kitchen of Middle Island, is congratulated by Margaret McHugh (right) of Astoria Federal Savings and Judy Guerin of Capitol One bank in Coram, who are immediate past president and president, respectively, of the Rotary Club.

But the soup kitchen has to move by the end of October. They need affordable space with a large kitchen and dining area, on Route 25, and preferably, near a bus stop.

Way campaign. As Thee Island INN president over the past five years, Royce brings the same strategic and tactical talents, skills and energy to the table that she employs as Special Assistant to BNL's Assistant Laboratory Director for Facilities & Operations.
Royce emphasizes how much help she needs and gets to run Thee Island INN.
"Many people at BNL, in the Middle Island Rotary Club and in the community are long-time, regular, dependable supporters of the soup kitchen. They know

who they are, and they are terrific," Royce declares. "They bring in food, clothing and supplies, hand me checks, or both. They'll volunteer as a group to give the regular volunteers an evening off. And, if the soup kitchen has a particular need, then they not only get the word out, but they help respond to the need with the requested food and items."
Greatest Need: New Home for Soup Kitchen by 10/30
Right now, the greatest need of Thee Island INN is for a

new home: The 200-year-old farmhouse in which the soup kitchen has been cooking and serving for nearly 20 years was recently sold, and its new owners have other plans for the building.
"We must be out by the end of October," says Royce. "We've been exploring various options, but, so far, we have not found something comparable: something we can afford with a large enough kitchen and dining space on Route 25 to meet the needs of our guests and, preferably, near a bus stop."
If the soup kitchen does not find comparable quarters before the building is closed, Royce reports, "I tell our guests not to worry: Thee Island INN will not close permanently. We are not handing over the keys at our current location and walking away from our guests. With the help of those in the community, we will find space in which to operate. In the meantime, our guests can count on us as they always have."
Founded in 1961 to encourage community service by local business and professional persons, the Middle Island Rotary Club not only supports Thee Island INN, but also the Island Heart food pantry and two scholarships given annually to Longwood High School students. Nowadays, the club holds its weekly lunch meeting on Thursdays at the Middle Island Pizza on Route 25.
— Marsha Belford

BERA Updates, Trips, Events

Buy tickets weekdays, 9 a.m. – 3 p.m. at the BERA Store in Berkner Hall. More information about trips, events, clubs, fitness facilities is found online: <http://www.bnl.gov/bera/>.
Pilates Classes: The new series has been cancelled for lack of participants. Contact Kate Kam-ing at 379-1382, and Dan Melnik at 363-8805.
Long Island Ducks Playoff Games: Tickets are now available at the BERA Store in Berkner.
Atlantic City, Showboat Casino: Saturday, 10/3. Leave BNL, 9 a.m., leave casino, 8 p.m. \$20/person, includes \$30 slot play package (can-

not be cashed). Must be at least 18 years of age.
Costco Membership Drive: Thursday, 10/8. Representatives will be in Berkner Hall lobby 11 a.m. – 2 p.m.
Oktoberfest at Bear Mountain: Saturday, 10/17. Leave BNL at 8:30 a.m. and leave Bear Mountain at 4:30 p.m. \$15/person. Children of age two and younger are free if they sit on your lap.
Foxwoods Casino: Saturday 11/7. Leave BNL at 7:45 a.m. and take 8 p.m. ferry home. \$35/person includes bus, ferry, \$30 match play, lunch buffet, and three \$5 slot plays.

Walk to Help Fight Breast Cancer
The annual "Making Strides Again Breast Cancer Walk" will take place on Sunday, October 18, at Jones Beach State Park, starting in parking field 5. You may register between the hours of 8 a.m. and 11 a.m. and then begin the walk. Pick up a registration form at the BERA Sales Office or start your own on-line fund raising team at: makingstrides.acsevents.org/longisland.

CALENDAR

— THIS WEEK —

***October is "Body & Soul" Month.**
See some of the month's health activities are below and at <http://intranet.bnl.gov/bodysoul/>.

Friday, 10/2

Body & Soul: Labyrinth Meditation
11 a.m. – 1:30 p.m. Brookhaven Center. Part of Body & Soul. Adults and children are welcome. Explore the history online at <http://www.labyrinths.net/>.

— WEEK OF 10/5 —

Wednesday, 10/8

Body & Soul: Yoga
Noon. Brookhaven Center. Ila Campbell will lead a yoga class. All are welcome. Register at <http://intranet.bnl.gov/bodysoul/>

Thursday, 10/8

***Costco Membership Drive**
9:30 a.m.-2 p.m. Berkner Hall lobby. Representatives from Costco wholesalers will hold a membership drive. Free gift with renewals. For new members, \$20 cash card for Executive option, \$10 for Standard.

Friday, 10/9

Body & Soul: Massage Day
11 a.m.-2 p.m. Berkner Hall, Room B. 10-min. massage. Pre-registration required. Call Michael Thorn, Ext. 8612 for appointment. See below.

— WEEK OF 10/12 —

Tuesday, 10/13

Tour Gym, Pool, Weight Room
11:30 a.m.-1:30 p.m. Body & Soul event. Open house. See <http://intranet.bnl.gov/bodysoul/>.

***Talk by Cole on Frank Oppenheimer**
4 p.m. Berkner Hall. Science writer K.C. Cole will give a free talk based on her book on Frank Oppenheimer. Sponsored by Brookhaven Women in Science. All are welcome. Visitors to the Lab of 16 and over must carry a photo ID. See pg. 1.

Wednesday, 10/14

***BSA Noon Recital — Piano Trio**
Noon. Berkner Hall. See pg. 4.

Talk: Peaceful Body, Quiet Mind
Noon. Berkner Hall, Room B. Talk by Nancy Losinno, EAP Manager. See <http://intranet.bnl.gov/bodysoul/>.

Celebrate Body & Soul

Body & Soul will be held during the month of October. All BNLeers are invited to participate in a wide range of events and activities. Body & Soul is sponsored by Brookhaven Science Associates and chaired by Michael Thorn and Jorge Romero through Human Resources and the Occupational Medicine Division. For more information and to register for events, go to <http://intranet.bnl.gov/bodysoul/>.



Classified Advertisements

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

OPEN RECRUITMENT – Opportunities for Labj employees and outside candidates.

POSTDOCTORAL RESEARCH ASSOCIATE (Synthesis & Analysis of Organic Compounds) - Requires a Ph.D. in organic chemistry, chemical biology, biochemistry, or a closely related field. Candidate will have a background in the synthesis and analysis of organic compounds. Experience with radioisotopes advantageous, but not required. Working knowledge of biology is a plus. Good oral and written communication skills are required. Will join the PET Radiochemistry Group of the Medical Department. The main focus of the program is to develop radiotracers that can measure and image molecular interactions occurring in biological systems. We accomplish this by labeling organic compounds with short-lived isotopes (carbon-11, fluorine-18, or nitrogen-13). A fundamental goal of our research efforts is to increase the types of functional groups that can be labeled using these isotopes by developing new chemical reaction methodology. Employment is contingent upon the successful completion of a DEA background check. Under the direction of J. Hooker, Medical Department. BNL policy states that Research Associate appointments may be made to those who have received their doctoral degrees within the past five years. Apply for Job ID #15047.

STAFF SURVEY AND ALIGNMENT PROJECT ENGINEER (P-7, reposting) - Requires a bachelor's degree in Geodetic or Survey Engineering with a minimum of seven years' experience doing survey/geodetic adjustments of three-dimensional networks or an equivalent combination of education and experience. Excellent computer skills including computer-aided design, survey, and data analysis programs are required. Excellent written and verbal communication skills are required to direct the efforts of laboratory technical personnel and to interact with scientific and engineering staff. The C-AD Survey Group provides overall direction and coordination of survey activities in support of construction and operational needs in the RHIC Complex. They provide Survey/Geodetic expertise in the areas of three-dimensional network adjustments, data acquisition, network design, component placement, data analysis, and bundle adjustments. Will analyze, adjust, and integrate data from survey instrumentation including total station instruments, laser trackers, mekometers, optical tooling, and other survey and alignment equipment. Collider-Accelerator Department. ERAP Eligible \$1,000. Apply for Job ID# 14673.

ENERGY SCIENCE ASSOCIATE III (ENERGY MODELING) (P-3, reposting, term appointment) - Requires an advanced degree in energy or economics and hands-on experience working with MARKAL and MARKAL variants. Knowledge of energy-related analysis is required. Expertise in the application and modification of the MARKAL model suite of codes is highly desirable. Will be expected to work closely with customers and develop solutions to customer needs, assist in formulating revisions and new features for the MARKAL model, prepare briefings and make presentations as requested, and contribute to technical papers for journals and conferences. Manage and deliver expertise in support of the Department of Energy and other Federal and State agencies' energy/environmental/economic modeling activities. Energy Sciences & Technology Department. Apply for Job ID # 14969.

ELECTRO-MECHANICAL TECHNICAL ASSOCIATE II (T-4) - Under general technical direction and with considerable latitude for the exercise of a high degree of initiative and judgment, will work on a team to plan, coordinate, and perform challenging assignments on girder magnet assemblies, precision alignment, front ends, and vibration and thermal measurements. Requires an AAS degree or equivalent in electro-mechanical technology and a minimum of six years of relevant experience in the use of electro-mechanical equipment. Must have high degree of initiative and judgment, and must be able to plan, coordinate and perform technical assignments. Strong background and demonstrated competence in assembly, installation and maintenance of mechanical devices and subsystems are required. Previous experience in an accelerator or a light source facility, experience in the use of machine shop tools, experience in working with cryogenic systems, and working knowledge of PC software such as Inventor, Word and Excel, are highly desirable. Reports to the Mechanical Engineering Group Leader, NSLS-II. National Synchrotron Light Source-II. ERAP eligible - \$1,000. Apply for Job ID #15048.

SR. ELECTRICAL TECHNICAL SPECIALIST (T-3) - Requires minimum of an associate's degree in electronics, preferably a bachelor of technical degree from an accredited program, and a minimum of six years of experience. Present day schematic capture EDA tools, such as or equivalent to ORCAD schematic capture required, with

PCB layout design experience a plus. Demonstrated experience in component level trouble-shooting for both analog and digital circuitry, along with the knowledge of utilizing related diagnostics equipment such as Oscilloscopes, DMM's, power supplies, and Frequency generators. Knowledge in Lab view would be a plus. Excellent communication skills and ability to use and/or develop affective technical testing procedures are also required. Role will be to use present and/or new engineering techniques, and/or equipment, for the solution and completion of technical annual installations and/or repairs of various STAR detector sub-systems. Must also possess strong organizational skills, with the ability of self-managing his or her own daily work tasks. Responsibilities include trouble-shooting complex electronic circuits boards down to component level, soldering replacement components to respective PCB board, developing formal test procedure documents for testing of various circuit board assemblies, performing various circuit board testing procedures, routing of PCB boards from a completed circuit schematic net-list, mechanical assembly of electronic subsystem enclosures, and extraction and installation of various subsystem assemblies on the detector, which may involve utilization of a combination of a ladder, scissor-lift or harness. Physics Department. Apply for Job ID #15042.

TECHNICAL SPECIALIST (T-2, reposting) - Will perform a wide variety of highly skilled technical assignments in support of the engineering, scientific and technical staff, under general technical direction. Job duties include the fabrication and assembly of hardware, precision measurement, trouble-shooting, repair and maintenance of NSLS mechanical and cryogenic components and systems. Requires an associate's degree in mechanical engineering technology or equivalent capabilities, plus at least four years of relevant work experience. Must be familiar with the fabrication, assembly and testing of mechanical and cryogenic equipment; must have excellent mechanical skills, proficiency with the use of hand tools, knowledge of machine shop processes including milling machines, lathes, saws and grinders. Must have the ability to work from drawings, lift 30-50 lbs, read schematics and work from verbal instructions. Must be self-motivated, able to work with minimum supervision, and have good communication skills. Preferred skills include use of portable coordinate measurement apparatus; proficiency in Microsoft Office use; basic knowledge of electronics; brazing and soldering skills. National Synchrotron Light Source. Apply for Job ID #14936.

PLUMBER A (TERM) - Under minimum supervision, lays out, constructs or installs, repairs, and maintains water and gas distribution systems, related facilities and auxiliary equipment and equipment utilizing water, gas and heat distribution services. Requires six years of total experience composed of four years of apprenticeship plus two years of experience, or six to eight years of total experience composed of formal trade school plus a minimum of two years of experience, or eight years of total experience preferred. Maintenance & Fabrication Division. Apply to Job ID #15044.

Motor Vehicles & Supplies

04 TOYOTA COROLLA LE – 81K mi. 4 cyl, a/t, am/fm,cd, a/c, all pwr c/c, dual air bgs, fwd tilt steer, excel, \$7,000 neg. Ext. 2828.

03 DODGE GRAND CARAVAN – 83K mi. EX model, loaded,leather. Great shape, dealer maint. \$6,500 neg. 331-0816.

03 FORD ESCORT ZX2 – 46K mi. 2dr, 4cyl, a/t, a/c, ps, am/fm/CD, gray, great cond, 25mpg. \$5,000 neg. AL, Ext. 7859.

02 KAWASAKI VULCAN CLASSIC 1500 – 8.5K mi. fully dressed, w/shld, sddlelbs. cust pipes, reg maint, \$6,000 neg. 834-2945.

00 NISSAN FRONTIER CREWCAB – 79K mi. 4-dr 4X4 6cyl a/t c/c abs p/w p/d cl (fully-loaded) warr. to 2011. \$8,250. Ext. 3766.

00 ACURA INTEGRA – 156K mi. mnuat tranny, cd/mps 2dr, new tires/ brakes, CD/MP3/AC/ABS/. \$4,300 neg. jakoncic@bnl.gov.

99 SUBARU LEGACY OUTBACK WAGON 4D – 120K mi. LTD Ed, gd cond, reliable, runs well. \$5,300 neg. Ext. 2172.

98 CHEVY MALIBU – 135K mi. 4 dr., V6, pw, pl, well maint, burgundy. \$1,500. 882-0519.

82 MERCEDES-BENZ 300 TD – Turbo diesel, gd cond. \$2,750 neg. 576-5102.

CAR SEAT – Evenflo Car Seat, for kids < 50lbs. used 1.5 yrs. Ask for \$45. Neg. Yongjun, Ext. 7182 or yji@bnl.gov.

Furnishings & Appliances

4 PC TABLES – l/r, tables glass top/wright iron below, \$150/obo; convertible lt oak sleigh crib, pd/\$600, ask/\$120, Ext. 3924.

AIR CONDITIONER – Gold Star brand. \$79. 447-5190.

DINING TABLE – glass, 42" w x 72" l, w/6 chairs, excel cond, pics avail, \$300. jmulvaneyhome@yahoo.com.

DRESSER – solid oak dresser like new, Must sell u-pic-up, 960-2676. Mark, Ext. 2238.

GLIDER ROCKER & OTTOMAN SET – oak wood w/hunter green cushions, like new, pd/\$200, ask/\$100/obo, pic avail. 236-2315.

M/WAVE CABINET – w/wheels, solid wood, storage, 52.5h,17.5d,24" w, towel rack,

photos avail, \$35. Ext. 2198, 591-1183.

PIANO – upright, needs tuning, can help move, \$250. Ext. 7235, 286-1018.

SLOW COOKER – Hamilton Beach 4qt, oval, new, 12x12x9", glass lid w/removable stoneware crock, d/w safe. \$20. Ext. 2522.

WALL UNITS – 2/dark walnut w/glass drs, used as a china closet, \$150, pic avail. jmulvaneyhome@yahoo.com.

Audio, Video & Computers

21 MULTISCAN E540 – works fine, \$50/obo. Scott, Ext. 3553 or jsberg@bnl.gov.

DENON DVD/CD PLAYER – Model DVD-1920, HDMI, progrsv scan, Faroudja 720p/1080i upcnvrtg, DVD audio, \$200. Ext. 5937.

SONY BLUE RAY DISC PLAYER – BDP-S350 1080p, new cond, rem contr/cables, 3' HDMI cable to HDTV, pics \$250. 744-4061.

SONY CD CHANGER – Sony CDP-CX355, 300 disc mega storage CD changer, pics avail, \$130. Francine, Ext. 3381.

Sports, Hobbies & Pets

BASS GUITAR – Charvel/Jackson Model 1B, Jackson J20 pick-up, new strings, gd cond, \$275. Ext. 2913.

DOG CRATE – for med size dog, assembled but never used, pad incl, pic avail, \$60. Elaine, Ext. 3830.

FISH TANK – acrylic, 55 gal Clarity Plus tank,hinged top, 25"h, 51"l, 81"d. Coral base, 7 coral pcs, \$150. 974-6689.

TANDEM BIKE – 5-speed gear shift. Includes hand pump & ceiling mount (you dismantle). \$125. 751-3408.

WETSUIT – youth size 12, excl cond, pd/\$110, ask/\$55. Ext. 7235, 286-1018.

YOUNG CHANG UPRIGHT PIANO – Condo Console, shortened by 3 keys, grt cond, nds tuning, pics, \$2,000/obo. Ext. 3252.

Tools, House & Garden

OIL TANK – 275 gal, used, \$20. 345-0063.

Miscellaneous

2 TICKETS: THE MACHINE – Pink Floyd tribute band show, 10/2, 8p, Westbury Music Fair, Sec C, Row M, S1s 1 & 2, on aisle, pd \$125, ask/\$100/both. 294-7505.

BABY BATHTUBS – infant/\$5, toddler/\$10, used, gd cond; wood changing table on rollers w/drawer/\$25. Ext. 3621.

DIAMOND ENGAGEMENT RING – Solitaire SI-2 WHITE, .65ct, 14K gold, photo avail, \$750/obo. 516-817-0999.

FISHER PRICE TOYS – Sing & Story Lrning Chair \$20, Little Star Sing-Along Stage \$30, Bounce&Spin Zebra \$25; \$60/all. Ext. 3924.

GIFT CERTIFICATES – (2)\$25 Villa Grazia Restaurant of Centereach, (2) \$25 Royal Pizza of Patchogue, will sell for \$12 each. Heather, Ext. 4138.

HUTCH – light oak w/glass drs, excel cond, pics avail, ask/\$250. Ext. 3924.

MAZE HAVEN – for pets to play and have a blast/\$20, brand new, still in pckge. 751-5245 or wejappe@gmail.com.

PICTURE FRAMES – various, v/lg to sm, most v/gd cond, some w/glass, make offer. Kathleen, Ext. 7114.

TODDLER SHOES – Girl's Sz 5. Nike, Sketchers, Carters, more. New or excel. cond. \$6/pr neg. Ext. 3924.

Community Involvement

GOLF OUTING – to benefit McGann-Mercy High School, Riverhead, Tue, 10/6, Great Rock Golf Club, Wading River, lunch/registr/11:30am, Shot Gun starts/1pm, dinner 6pm, ext/34. 727-5900 or jsberg@bnl.gov.

Happenings

GLOBE DINNER – GLOBE will meet over dinner on Thur, 10/15. This event is open to all employees. Contact Debbie for time & location. Ext. 5664 or bauer@bnl.gov.

Free

BUNNIES – 1 male, 1 female, both spyd, neutrd, New Zld breed, white w/pink eyes. v adorable/beautiful. Warren, Ext. 2080, 751-5245 or wejappe@gmail.com.

DOUBLE STROLLER – older model, used but in serviceable cond. Ext. 3621.

Wanted

ADOPT-A-PLATOON – Monetary donations gratefully accepted towards mailing shipments to military overseas. Thank you. Joanne, Ext. 8481.

APPLE WOOD – or will cut up apple tree, free or inexpensive, will pick up. Donald, Ext. 7237, 929-6571 or sievers@bnl.gov.

BABY FOOD JARS – looking for empty baby food jars of various sizes w/their lids. Sonya, 236-2315 or skiss@bnl.gov.

BNL FAMILY MEMBERS IN MILITARY – If you have a family member who has been deployed overseas, please contact Adopt-a-Platoon. Joanne, Ext. 8481.

CHILDREN'S DRESS CLOTHES – need casual clothing, gd cond, toddler boy sz 4T, girl sz 10-12. Ext. 8593 or newsmo@bnl.gov.

REFRIGERATOR – 65"L, 36"W, 30"D, or close, any color, under \$250. 413-8145.

VIDEO GAME SYSTEMS – Collecting

BSA Noon Recital, 10/14

Trio Voce, a spectacular new piano trio will perform on Wednesday, October 14, 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 Laboratory age 16 and over must bring a photo I.D.

The three members, Jasmine Lin, Marina Hoover, and Patricia Tao, are established musicians who perform regularly for live broadcasts on WFMT-Chicago. The trio's program for Brookhaven Lab includes works by Rachmaninov and Ravel. For more information, go to <http://www.triovoce.com/>.



Beatles Tribute Band 'Mostly Moptop,' 10/24

The classic rock band Mostly Moptop will perform on Saturday, October 24, at 8 p.m. in Berkner Hall. Sponsored by the BNL Music Club, the event is open to the public. All visitors to the Lab of 16 and older must bring a photo ID. Mostly Moptop derived their name from pop



culture's famous bowl-style haircut first sported by the Beatles in the early days of their fame. Formed in 1995, Mostly Moptop performs music from the Beatles repertoire as well as other classic rock songs from the 1960s to the early 1980s.

Tickets are \$15 in advance and \$20 the day of the show. Buy tickets early at the BERA Store or through www.ticketweb.com. For more information go to www.myspace.com/mostlymoptop.

Celebrate Diwali, Festival of Lights, 11/7

The BERA Indo-American Association (IAA) will celebrate Diwali — The Festival of Lights — on Saturday, November 7, starting at 3 p.m. in Berkner Hall. This event showcases the rich culture and traditions of the Indian subcontinent through music, dance and art. Authentic Indian snacks during the break and a semi-formal Indian dinner after the cultural program will be served. Visitors to the Lab of 16 and over must bring a valid photo ID (driver's license, passport, etc.). Visit the following website for a request to perform and for reservations: <http://www.bnl.gov/bera/activities/iaa/diwali2009>. Tickets are: adults/\$15, children under 12/\$9; after October 31, adults/\$17 and children/\$10. Reservations will be confirmed after full payment is received. Tickets are fully refundable if cancelled by November 4. A Rangoli Display is also planned. Anyone interested may contact Kumi Pandya at pandya@bnl.gov. See also <http://www.bnl.gov/bera/activities/iaa>.

working, vintage video game systems & games for archive at SBU. Donors to be listed on Website. Will pick up. 310-866-1587.

WASHER & ELECT DRYER – working cond. Will pick up. Ext. 4238, scaffidi@bnl.gov.

WICKER PATIO SET – white outdr furn set, loveseat/chairs/table, inexpensive, gd cond. Rick, Ext. 3005 or rbuono@bnl.gov.

For Rent

NAPLES, FL – 2br/2ba furn condo, gated golf comm, spec. off-seasn rate thru 12/31. \$1,200/mo. 523-7870 or blade@bnl.gov.

CORAM – 1 bdrm condo, 1/bath, N. Isle Village, upper level unit, mint, no pets. \$1,250/mo neg. 516-635-8548.

MANORVILLE – 1 bdrm apt, lr, kit, bath, w/d, a/c, 12 mins to lab, avail 11/1, ltd time offer: 1 mo free, photos avail. \$1,345/mo neg. Wei, 204-7789 or weiku@bnl.gov.

MASTIC – new furn apt, 1 bdrm, kit, l/r combo, full bath, priv ent, quiet, own therm, util incl, nr LIRR, shops, Lab; no smkg/pets, 1 mo sec. \$775/mo neg. 335-4907.

MASTIC BEACH – 2 bdrm bsmt apt. w/full bath & kit, l/r, priv yd, off st. prkg, ref/sec. \$1,250/mo. Michelle, 516-817-1354.

MIDDLE ISLAND – 1 bdrm condo, Artist Lake, kit, l/r-d/r combo, pergo flrs, patio deck, w/d hookups, tennis, swim, plygrnd, no smkg/pets. \$1,000/mo. 655-4300.

MIDDLE ISLAND – lg 1 bdrm bsmt apt, pvt ent/drwy, tel/cable/int/heat/elect all incl, no smkg/pet, BNL or SBU only. \$800/mo. Istvan, Ext. 7020, 672-2451.

MIDDLE ISLAND – spacious 1 bdrm apt, lr, kit, bath, deck all appli, w/d, a/c, cable, util. incl. 3 mi to Lab. \$1,400/mo. Jim, Ext. 2765 or newburgh@bnl.gov.

MIDDLE ISLAND – renovated grd flr, 1 bdrm condo, nr Lab, incl heat. \$1,100/mo. 559-1931.

PORT JEFF STATION – Col, 3bdrm, 1.5bth, l/r, d/r, eik, fin bsmt w/poss.4th bdrm, w/d, d/w, fen yd, gas heat, no smkg, avail 11/1. \$1,800/mo. 413-5012.

RIDGE – 1 bdrm, full kit & full bath, lr/dr combo, woodbrng stove, incl. elect, 1 car gar, own drway, quiet, 5 min. to Lab, 1 mo sec. \$1,000/mo. 345-5426.

ROCKY POINT – 2 bdrm 1 bath house, new paint/carpet, OHW heat, w/d, nr beach, 15 min to Lab, pets ok, plus util, Avail 11/1. \$1,450/mo. 821-5334.

SETAUKET – 1BR/1BA wtrfrnt cottage, avail 11/1, heat incl, W/D & d/w, wood stove, cats ok, non-smoker, mnth-2-mnth or 1yr lease. pics avail. \$1,600/mo. Ext. 4716.

SHIRLEY – rm for rent. 1 mo sec, incl heat/cable/ elect, share kit, l/r, bathrm, 5 min from BNL. \$650/mo. Tina, 848-3434.

SOUND BEACH – 2 bdrm house, no smkg/pets, \$900/mo. + util, 327-0188. 744-7798.

YAPHANK – 1 bdrm, fully furn,v/comfortable/qu iet, computer, magic motion bed, tv,a/c, w/w carpet, new m/wave/fridge, immac, 6 min to Lab. \$950/mo. 924-3929.

YAPHANK – newly redecc. furn studio apt, clean/bright for 1 pers., all util incl, nr Lab, no smkg/pets. \$750/mo. 516-205-6712.

For Sale

MIDDLE ISLAND – 4 bdrm/2bth home, eik, fam rm, patio, fnccd opn yd, 15 mins to Lab, shy .5 acre nr Pine Lake, \$289,900 or rent move-n-cond, \$1,950 + util. 473-7496.

RIVERHEAD – Saddle Lakes 55+Gated Comm., in-out dr pools, tennis, more 2-3 bdrm, 2 bth, cac/gas, fin bsmt, cdr closet, gar, wtrview. \$360,000 neg. 905-9617.

SHOREHAM – cust 3 bdrm ranch, 2 full baths, wooded 1/acre lot in village, 338-0632/cell. \$549,000. Joanne, 928-5484.

SHOREHAM, – 4 bdrm., 2.5 bath Col., frml l/r, d/r, den w/fp, fin bsmt, 12x20 deck, lgs, new granite counters, SWRS, 7 mi to lab. \$489,000 neg. Don, 821-3320.