

Patricia Williams Named Manager, Safety & Health Services Division

Patricia Williams has been named Manager of BNL's Safety & Health Services Division (SHSD), effective December 1.

In her new position, Williams is responsible for managing 25 people and a yearly budget of approximately \$3.2 million. SHSD oversees safety engineering, industrial hygiene and chemical management for the Lab's approximately 2,700 employees

and its contractors and visitors. It assures compliance with DOE's orders and the U.S. Department of Labor's Occupational Safety & Health standards, and monitors the workplace for all forms of non-radiological hazards to workers, such as chemicals, magnetic fields, confined space, ergonomics, heat stress, traffic, and electrical hazards. The division also monitors and analyzes all reported

accidents resulting in injuries at the workplace to prevent future accidents and make BNL as safe as possible.

"My goal is to assure that the Lab achieves its objective to make safety personal at BNL," Williams said. "Through continued management commitment and active involvement of employees, guests and contractors in workplace safety, we will develop a robust safety culture and see consistent improvement in our performance. We do a good job of identifying and controlling non-routine hazards. As safety becomes a personal value, we will pay more attention to the routine things like making sure our seatbelts are on, following the speed limit and wearing our personal protective equipment. We'll practice safe habits all the time — at work and at home."

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Patricia Williams

Roger Stoutenburgh D1041104

Aerosols Lead to Climate of Uncertainty

Climate scientists agree that atmospheric carbon dioxide (CO₂) has increased about 35 percent over the industrial period and that it will continue to rise so that CO₂ will reach double its pre-industrial value well before the end of this century. How much this doubled CO₂ concentration will raise Earth's global mean temperature, however, remains quite uncertain and is the subject of intense research — and heated debate.

In the November issue of the *Journal of the Air and Waste Management Association*, Stephen Schwartz of BNL's Environmental Sciences Department argues that much of the reason for the present uncertainty in the climatic effect of increased CO₂ arises from uncertainty about the influence of atmospheric aerosols, tiny particles in the air.

Schwartz, funded by the Office of Biological & Environmental Research within DOE's Office of Science, is chief scientist of DOE's Atmospheric Science Program. He points out that aerosols scatter and absorb light and modify the properties of clouds, making them brighter and thus able to reflect more incoming solar radiation before it reaches Earth's surface.

"Because these aerosol particles, like CO₂, are introduced into the atmosphere as a consequence of industrial processes such as fossil fuel combustion,"

says Schwartz, "they have been exerting an influence on climate over the same period of time as the increase in CO₂, and could thus very well be masking much of the influence of that greenhouse gas." However, he emphasizes, the influence of aerosols is not nearly so well understood as the influence of greenhouse gases.

As Schwartz documents, the uncertainty in the climate influence of atmospheric aerosols limits any inference that can be drawn about future climate sensitivity — how much the temperature would rise due to a given increase in the atmospheric concentration of CO₂ alone — from the increase in global mean temperature already observed over the industrial period.

"In order to appreciably reduce uncertainty in Earth's climate sensitivity the uncertainty in aerosol influences on climate must be reduced at least threefold," Schwartz concludes. He acknowledges that such a reduction in uncertainty presents an enormous challenge to the aerosol research community.

An editorial accompanying the paper credits Schwartz with

presenting "a unique argument challenging the research community to reduce the uncertainty in aerosol forcing of climate change in order to reduce the uncertainty in climate sensitivity to an extent that would be more useful to decision mak-



Stephen Schwartz

Roger Stoutenburgh D0891104

ers." The editorial also suggests that, "Schwartz's calculations are not only of interest for the issue of climate change but may serve as a paradigm for environmental issues in general."

— Karen McNulty Walsh

For more details, see <http://www.ecd.bnl.gov/steve/UncertaintyRqmts.pdf> and <http://www.ecd.bnl.gov/steve/schwartz.html#research>.

BNL, BioSET Researchers Develop Synthetic Peptide Enhancing Bone Growth Factor Effect

Researchers from BNL and BioSurface Engineering Technologies, Inc. (BioSET) have developed a synthetic peptide that enhances the effects of a tissue growth factor known as bone morphogenetic protein 2, or BMP-2. BMPs are a family of proteins in the human body responsible for the proliferation, repair, and differentiation of cells in many tissues, including bone.

Funded by the National Institutes of Health and BioSET, the researchers designed one portion of the peptide to target

the BMP-2 receptor molecules that occur on the surface of bone-forming stem cells and another portion to interact with BioSET's drug-binding agent HepaSil™, a heparin-based product. The peptide, called B2A2, is one of a series of synthetic analogs of naturally occurring growth factors being developed in the BNL/BioSET collaboration.

This research was reported in the November 8th online version of the *Journal of Bone & Mineral Research*.

"Our study shows that a small amount of the peptide

that we developed increases the effectiveness of BMP-2 as much as 40 times," said Louis Peña of BNL's Medical Department, who is senior author of the paper. "This peptide unlocks a synergy with BMP-2. In a cell culture model, we used BMP at doses too low to have any observable effect by itself, and the same was true for the B2A2 peptide. But when the two were added together in the same low doses, the cells were strongly triggered to develop into bone-forming cells."

"First-generation BMP-impregnated medical devices are currently used clinically for spine repair and to accelerate the healing of long bones," Peña continued. "These devices show effectiveness in inducing bone repair, but there is concern over the high levels of the growth factors that are currently required. An agent that decreases the amount of BMP needed or one that can recruit the body's own growth factors to be more effective could have a substantial clinical benefit."

— Diane Greenberg
For more details, see www.bnl.gov/bnlweb/pubaf/pr/PR_display.asp?prID=04-98.



(From left) BioSET's Paul Zamora and BNL's Xinhua Lin and Louis Peña prepare synthetic peptide B2A2 for use in bone-healing experiments that involve the bone growth factor BMP-2.

Roger Stoutenburgh 0641104

BSA Distinguished Lecture, 1/24 Sylvester James Gates Jr. Talks on Superstring/M-theory

Sylvester James Gates Jr., Director of the Center for String & Particle Theory (CSPT) at the University of Maryland (U. Maryland) at College Park, will give a BSA Distinguished Lecture titled "Superstring/M-theory: A Lathe for Physics?" in Berkner Hall on Monday, January 24, at 4 p.m. These lectures are sponsored by BSA to bring topics of general interest before the Lab community and the public. All visitors to BNL age 16 and over must bring a photo ID.

For the last 30 years of his life, Albert Einstein struggled unsuccessfully to find a way to unite the newly established view of the smallest object, the quantum world, with the force that unites the furthest reaches of the universe: gravity. In recent years, physicists have developed a new theory — Superstring/M-theory, which encompasses both the infinitesimal and the unimaginably large. The theory views all matter as vibrating strings, operating in a universe with 11 dimensions — the four familiar ones of time and the three dimensions of space — and seven

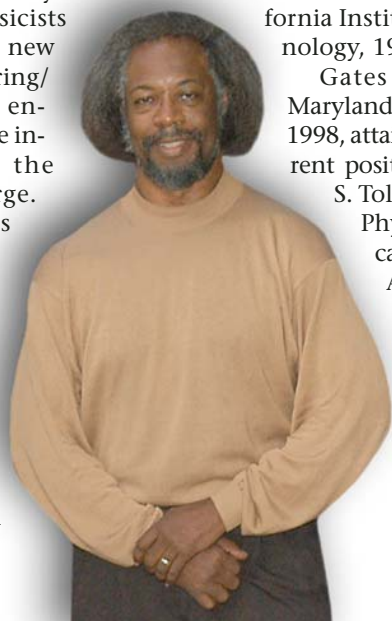
that are too small to be seen with current experimental techniques.

As he will explain, Gates, who is a pioneer in the development of the theory, sees it as a 21st century lathe — a machine capable of remarkable precision and versatility, but requiring a skilled and experienced operator for its success.

Sylvester James Gates Jr. received bachelor's degrees in both mathematics and physics in 1973, and a Ph.D. in physics in 1977, all from the Massachusetts Institute of Technology (MIT). He started postgraduate studies as a junior fellow of the Harvard Society of Fellows at Harvard University, 1977-80, and ended postgraduate work as a research fellow at the California Institute of Technology, 1980-82.

Gates joined U. Maryland in 1984. In 1998, attaining his current position as John S. Toll Professor of Physics, he became the first African-American to hold an endowed chair in physics at a major

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Joseph Rubino D1430504

Calendar
of Laboratory Events

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

— EACH WEEK —

Weekdays: Free English for Speakers of Other Languages Classes

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

Mondays: BNL Gospel Choir

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

Mondays & Wednesdays: Pilates

Mon., Noon-1 p.m. in the Rec. Hall; Wed., 5:30-6:30 p.m. in the Rec. Hall. Christine Carter, Ext. 5090.

Mondays & Wednesdays: Yoga

Noon-1 p.m., Brookhaven Center. Free. Ila Campbell, Ext. 2206, ila@bnl.gov.

Mon., Tues., & Thurs.: Kickboxing

\$5 per class. Mon., noon-1 p.m. in the gym; Tues., 5:15-6:15 p.m. in the gym; Thurs., noon-1 p.m. in the gym; Thurs., 5:15-6:15 p.m. in Brookhaven Ctr. North Room. Registration is required. Christine Carter, Ext. 5090.

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

Noon-1 p.m., Brookhaven Center North Room. Adam Rusek, Ext. 5830 or rusek@bnl.gov.

Tuesdays: Welcome Coffee

10-11:30 a.m., Rec. Hall. First Tuesday of every month is special for Lab newcomers and leaving guests. Cindy Ottemann, 849-2646.

Tuesdays: BNL Music Club

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

Tuesdays: Jiu Jitsu Club

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

Tuesdays: Toastmasters

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

Tuesdays & Thursdays: Aerobics

5:15-6:30 p.m., \$5 per class or \$40 for ten classes. Rec. Hall. Pat Flood, Ext 7886.

Tuesdays & Thursdays: Aqua Aerobics

5:15-6:15 p.m. Eight-week session. \$20 to attend once a week; \$40 to attend twice a week. Ext. 2873 for more information.

Tuesdays & Thursdays: Jazzercise

Noon-1 p.m., Rec. Hall. Preregistration is required. Christine Carter, Ext. 5090.

Tues., Thurs., Fri.: Upton Nursery School

8:30-11:30 a.m. Rec. Hall. Two- and three-day program avail. 727-8082 or Ext. 5090, for information.

Tues., Wed. & Thurs: Rec Hall Activities

5:30-9:30 p.m. General activities, large-screen TV, ping pong, chess, games, and socializing. Christine Carter, Ext. 5090.

Wednesdays: On-Site Play Group

10 a.m.-noon. Rec. Hall. An infant/toddler drop-in event. Parents meet while children play. Kati Petreczky, 821-4131.

Wednesdays: Weight Watchers

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

Wednesdays: Open Chess Night

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

Wednesdays: Dance Lessons

5:15-8 p.m. Brookhaven Cntr., North Room. BNL Ballroom Dance Club hosts lessons, beginner to adv. John Millener, Ext. 3853.

Thursdays: Reiki Healing Class

Noon-1 p.m., Bldg. 211 Conference Rm. Nicole Bernholc, Ext. 2027.

*Thursdays: FreshDirect Delivery

3:30-5:30 p.m., Berkner Hall parking lot. Moved to Wednesday, next week only., See notice on page 3.

Fridays: Family Swim Night

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

Fridays: BNL Social & Cultural Club

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

WEEK OF 1/10/05

Wednesday, 1/12

*BSA Noon Recital, Simply Gershwin
Noon-1. Berkner Hall. Pianist Paul Bisaccia and tenor John Whitley will perform music of George Gershwin in a concert, "Simply Gershwin." See notice, page 3.

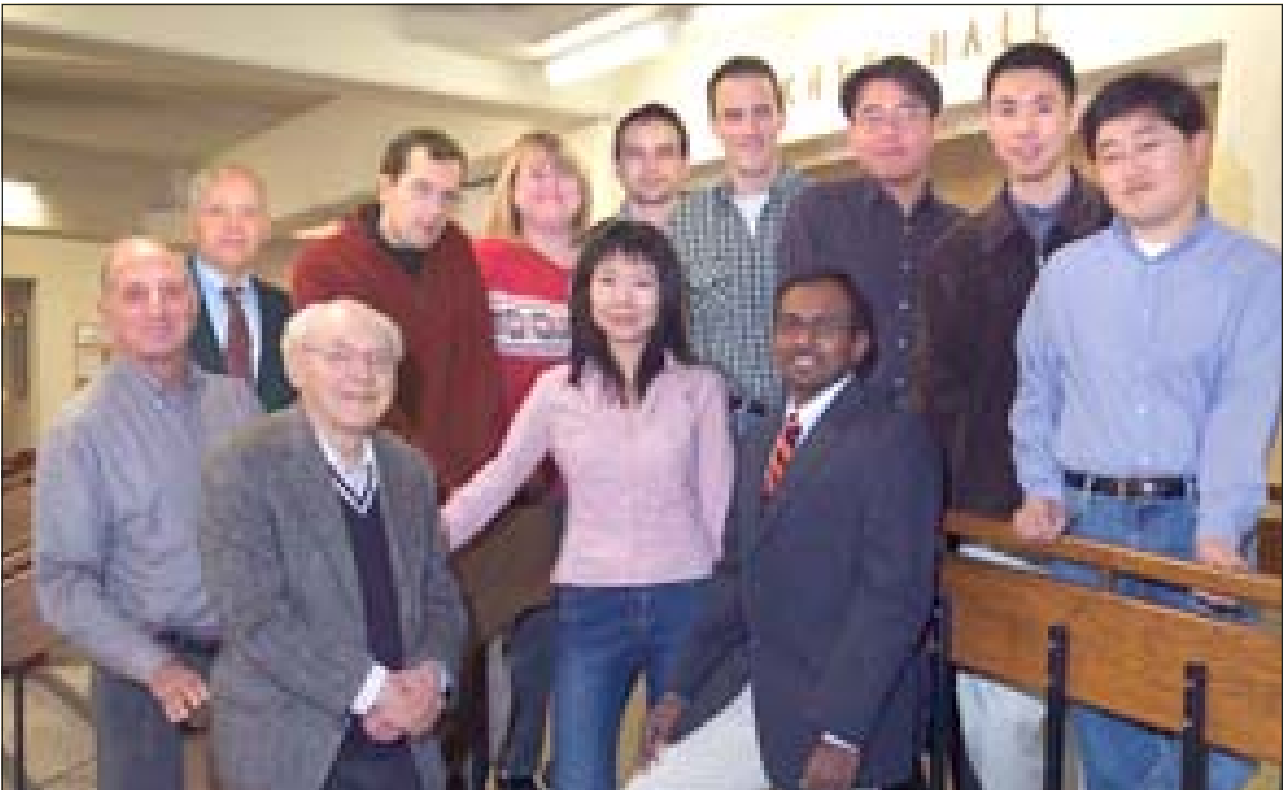
Thursday, 1/13

Men's 'Fun' Basketball Tournament

All are welcome to join in as a 4-man team or as individuals. See notice, page 3. To register today, 1/7, contact Jim Desmond, Ext. 4837, desmond@bnl.gov; or Bill Gunther, Ext. 7961, gunther@bnl.gov.

Goldhaber Fellows to Talk on Present, Future Research, 1/13

Forgathered at Berkner Hall with Maurice Goldhaber (front, left), former BNL Director and BNL Distinguished Scientist Emeritus, are: (clockwise from left) Leonard Newman, Goldhaber Fellowship Program Coordinator; Peter Bond,* Deputy BNL Director for Science & Technology (Interim); and nine current Goldhaber Fellows: Peter Petreczky, Kimberly Mayer, Adrian Gozar,* Robert Klie, Kuo-Wei Huang, Jian Wang, Seogjoo Jang, Devicharan Chidambaram, and Yinan Wei. * Added digitally.



Roger Stoutenburgh D0160105

Next Thursday, January 13, all are invited to attend as several of BNL's bright young scientists give a mini-symposium presenting highlights of their research over the past year and their future plans. The event, to be held in the Hamilton Seminar Room, Bldg. 555, 2-5 p.m., will feature talks by the nine scientists holding Gertrude and Maurice Goldhaber Distinguished Fellowships, some of whom will be completing their appointments at the end of this fiscal year.

It is nearly four years since BNL created the Gertrude and Maurice Goldhaber Distinguished Fellowships program with fund-

The nine fellowship recipients giving talks are:

Devicharan Chidambaram, materials scientist: Employs spectroscopic techniques to study surface analysis especially as related to corrosion resistance. Stony Brook University Ph.D. and MS. Will study the nature of electron transfer processes in biomolecules at the fundamental level employing state-of-the art electrochemical and electroanalytical techniques. Mentored by A. J. Francis.

Adrian Gozar, physicist: Performs spectroscopic studies of strongly correlated electron systems. University of Illinois, Urbana-Champaign Ph.D., University of Bucharest B.S. Will study correlated electronic behavior in transition metal oxides and focus on the properties and mechanisms of high temperature superconductors. Mentored by Ivan Bosovic.

Kuo-Wei Huang, chemist: Studies structure and thermodynamic stability of titanium complexes ligated by stable nitroxide radicals. Stanford University Ph.D., National Taiwan University B.S. Will study rhodium catalyzed photo-reduction of carbon dioxide to understand photochemical processes involved in the design of more efficient catalysts for artificial photosynthesis. Mentored by Etsuko Fujita.

Seogjoo Jang, chemist: Identifies quantum master equation approaches for condensed phase dynamics. Research Fellow Massachusetts Institute of Technology, University of Pennsylvania Ph.D. Works on theoretical analysis and computer simulation of chemical dynamics in complex condensed phase media and assemblies. Mentored by Marshall Newton.

Robert Klie, physicist, materials scientist: Studies the structure property relationships at defects in the bulk and at interfaces in oxide ma-

ing from Battelle and Stony Brook University, the partners that make up Brookhaven Science Associates. The fellowships are awarded to candidates with exceptional talent and credentials who have a strong desire for independent research at the frontiers of their fields. Candidates had to be no more than three years past receipt of the Ph.D. at the time of their application. The intention of the program is to select individuals who will qualify for scientific staff positions at BNL upon completion of their appointment. Goldhaber appointees work in close collaboration with a member of the BNL scientific staff who serves as their mentor.

terials. University of Illinois at Chicago Ph.D., Kingston University, London, B.S. Employs solid state physics utilizing atomic scale electron microscopy as applied for analytical microscopic techniques. Mentored by Yimei Zhu.

Kimberly Mayer, biologist: Studies molecular biology, genetics, and protein engineering. National Institutes of Health postdoctoral fellow at California Institute of Technology; Purdue University Ph.D. Uses molecular biology and classic genetic techniques to study the developmentally regulated excision of internal eliminated sequences in Paramecium. Mentored by John Shanklin.

Peter Petreczky, physicist: Studies statistical mechanics of matter of the quark gluon plasma and lattice gauge theory. Research Fellow, Bielefeld University, Germany; Eotvos University, Hungary, Ph.D. Research involves quantum chromodynamics thermodynamics at high temperature. Mentored by Larry McLerran.

Jian Wang, chemist and chemical engineer: Designs, builds, and deploys instruments for measuring aerosol properties. California Institute of Technology Ph.D. Has particular interests in determining under what conditions new particle formation occurs in the atmosphere. Participates in field programs and deploys his instruments aboard aircraft. Mentored by Peter Daum.

Yinan Wei, biochemist: Performs structural and functional studies of designed proteins. Princeton University Ph.D., Peking University B.S. Works on the molecular mechanism of heavy metal transporter proteins in terms of their structures at an atomic resolution and the molecular dynamics of metal binding and metal movements. Mentored by Dax Fu.

Williams New S&H Services Manager (cont'd.)

Throughout her 17 years at BNL, Williams has championed numerous safety initiatives, including, most recently, a pilot project in which three Lab organizations registered to be part of the OHSAS 18001, an internationally recognized system for assessing occupational health and safety management systems that helps companies to reduce risk and improve overall safety performance. By October 2006, Williams plans to have the entire Lab registered under OHSAS 18001.

Williams earned a bachelor's degree in mechanical engineering from Stony Brook University in 1985 and became a board-certified safety professional in 1993. She went on to earn a master's degree in mechanical engineering from Manhattan College in 1995. She was an assistant project engineer for J.T. Falk & Company, Inc., in New York City, and was a safety-engineering intern for the U.S. Army Materiel Command in Texas before joining BNL in 1987 as a safety engineer.

After several promotions, Williams joined the Plant Engineering (PE) Division in 1994 as manager of the Safety, Training & Quality Group. She then worked her way up through the ranks to become manager of the Environment, Safety, Health, Training & Quality Group for facilities and operations in 2001. She held that position until she took on her current responsibilities.

Among her many significant achievements, Williams has reduced PE's personnel injuries by 80 percent over an eight-year period. She also has been actively involved in numerous Lab committee, including those focused on traffic safety, work planning, and diversity. She is currently co-chair for Brookhaven Women in Science, a not-for-profit organization at BNL whose aim is to promote the advancement of women in science. — Diane Greenberg

BSA Distinguished Lecture (cont'd.)

research U.S. university. On leave of absence 1991-93, he served as physics professor and chaired the Physics Department at Howard University. In 2002, he was named CSPT Director at U. Maryland.

A Fellow of the American Association for the Advancement of Science, the American Physical Society (APS), and the National Society of Black Physicists (NSBP), Gates also was the first recipient of the APS Bouchet Award and a past president of NSBP. Among other honors, he received the MIT Martin Luther King Jr. Leadership Award in 1997, the Washington Academy of Sciences College's Science Teacher of the Year in 1999, and the American Association of Physics Teachers' Klopsteg Award in 2002. He has authored or co-authored 120-plus published research papers.

— Diane Greenberg

Reimbursement Account Deadline, 3/31

According to the Internal Revenue Service, contributions to health care or dependent day care accounts not used by the end of the calendar year will be forfeited. So, do not forget to use up balances within all 2004 reimbursement accounts by claiming expenses incurred in 2004. Submit claim forms by March 31, 2005.

College Accounting Course: Register by 1/10

A four-credit course, AC11 - Principles of Accounting I, to be given on site this spring semester, will satisfy most Suffolk County Community College degree requirements. No prerequisite is required. Employees who take college courses may apply for tuition assistance. BNL offers tuition advances or reimbursements at 75 percent for undergraduate courses. For more information, contact Starr Munson, Ext. 7631 or munson@bnl.gov.

More BNL Pollution Prevention Projects Funded in FY2004

Each year, BNL's Pollution Prevention Council, composed of one representative per directorate and chaired by Peter Pohlot, Environmental & Waste Management Services Division (EWMSD), asks for suggestions from employees on how BNL can reduce wastes and prevent pollution. Eight proposals were funded in FY2004, and they are expected to save the Lab a total of \$62,000 annually.

Mercury-Free Equipment

- Replacement of mercury-containing equipment in the Occupational Medical Clinic (OMC) -- Michael Thorn, OMC, requested \$2,500 to replace six sphygmomanometers, or instruments for taking blood pressure, and several thermometers with mercury-free devices. Originally submitted during FY2003, the proposal was re-evaluated and funded this year in accord with the Laboratory's focus on removing potential streams of mercury contamination. Based on estimates for a potential spill cleanup, this proposal has a payback period of less than one year.



Michael Thorn and Mary Franchi, Human Resources & Occupational Medicine Division, will use certain mercury-free instruments.

Closed-Cycle Water Recycling System for Melt Spinner

- Closed-Cycle Water Recycling System for Bldg. 480 Melt Spinner — Laura Henderson Lewis, Materials Science Department, uses a melt spinner — equipment that changes a liquid into a solid while maintaining the atomic structure of the liquid — for her research. Currently, the melt spinner is cooled by single-pass cooling water from BNL's water supply, but this water carries a large concentration of particulates, including iron, which foul the water lines and the machine itself. In addition, the water has a marginal flow rate and low pressure for the power generator



Users of the new closed-cycle water recycling system for the melt spinner include: (from left) Kyongha Kang, Department of Materials Sciences (DMS); Lorraine Davis, Center for Functional Nanomaterials; and Laura H. Lewis, Ken Sutter, and Bob Sabatini, all of DMS.

Arrivals & Departures

Arrivals

Eva Erens	HR&OM
Howard Hansen ...	Instrumentation
John Reddy	ITD
Fan Wu	Chemistry
Lihua Zhang	CFN

Departures

Edward Bajon	C-A
Christopher Fockenber	Chemistry
John Gatley	Medical
John McNeil	Magnet
Bruce Miller	Quality Mgmt.
Susan Simpson	FSD
Jamie Sims	SSD
Amalia Singledecker	SSD
Rogelio Tomas Garcia	C-A
Andrea Turcot	Physics
Hong Wang	Biology
Zilu Wu	NSLS

In Memoriam

Angelo Crisci, who had joined the Central Shops Division as a machine maintenance mechanic B on July 12, 1982, and had left the Lab as machine maintenance mechanic A on January 10, 1990, died on July 22, 2004. He was 76.

Frederick Heemsoth, who had become a technician B on joining the Instrumentation Division on January 29, 1951, and had left BNL as a technical associate II on March 28, 1979, died on July 31, 2004. He was 83.

Douglas Daniels, who had started at BNL with Life No. 332 as Clerk A in the Supply & Material Division on March 24, 1947, and had retired as storeskeeper on February 27, 1981, died at age 85 on August 14, 2004.

The payback period for the investment is an estimated 1.4 years. Two proposals were described in the Bulletin of October 29, 2004. Two more are featured this week, and others will follow.

Pollution prevention proposals are still being accepted for FY2005. Contact your environmental representative, or Pohlot, Ext. 5660 or pohlot@bnl.gov.

in the melt spinner, which causes the machine's interlocks to shut down spontaneously.

Lewis suggested using a closed-loop water system for the melt spinner, which would use the same purified water to cool the machine continuously. While the cost for this project is \$5,000, it is expected that the new water recycling system will result in 10,000 gallons of water saved annually. In addition, the melt spinner, an \$80,000 piece of equipment, will function more reliably and last longer. The payback period is estimated at less than one year.



BSA Noon Recital — 'Simply Gershwin,' 1/12

Pianist Paul Bisaccia and tenor John Whitley will perform the music of American composer George Gershwin in a concert called "Simply Gershwin," on Wednesday, January 12, at noon in Berkner Hall. Sponsored by BSA, the free concert is open to the public. All visitors to the Lab age 16 and over must bring a photo ID.

Paul Bisaccia was the first artist to record the complete piano music of George Gershwin. The PBS television special, "Gershwin by Bisaccia," has been broadcast throughout the country on over 100 television stations, and in China as well as other parts of Asia.

Billboard praised Tenor John Whitley as a great singer who brings a warm sense of humor and honesty to familiar tunes like "It Ain't Necessarily So," "Who Cares," and "Summertime."



Paul Bisaccia and John Whitley

Call for Nominations for Goldhaber Prize

Brookhaven Women in Science (BWIS) is now accepting nominations for the 2005 Gertrude S. Goldhaber Prize. This award honors the late Gertrude Scharff-Goldhaber, the renowned nuclear physicist who, in 1950, became the first woman Ph.D. appointed to BNL's staff. She was also a founding member of BWIS.

The \$1000 award is granted to a female graduate student in physics, who is recognized for her substantial promise and accomplishment. She will be expected to give a seminar on her work at the award ceremony in the spring. To be eligible, she must be an enrolled physics graduate student who is a candidate for a doctoral degree, but not to be graduating with that degree before spring 2005. She must either be enrolled at Stony Brook University (SBU) or be performing her thesis research at BNL.

BNL staff members and the faculty of the Physics Department at SBU can make nominations before February 15, 2005. For more information or to obtain copies of the nomination form, please contact Vinita Ghosh, Ext. 6226, or ghoshvj@bnl.gov.

Some Changes in Withholding Taxes

Effective January 1, 2005, the U.S. Federal, New York State and City of New York personal income tax rates have changed for some taxpayers. The impact of these rate changes will be minimal and could result in a slight reduction in employee withholding taxes.

If you do not want to have your withholding reduced, you should file a new Form W-4, Employee's Withholding Allowance Certificate. You may claim fewer withholding allowances on line 5 or request additional amounts to be withheld on line 6. This form is available in the Payroll office or may be downloaded from the website noted below. Withholding changes may also be affected online using PeopleSoft Employee Self Service.

The new tax tables are available on the Payroll website at <http://intranet.bnl.gov/fsd/payroll.asp> with other important payroll information for tax year 2005.

For more information, contact the Payroll Office, Ext. 2470.

Start Aerobics, 1/11

A new 10-week session of the Aerobic Fitness Club begins on Tuesday, January 11. Classes will be held on Tuesdays and Thursdays, starting at 5:20 p.m. in the Recreation Hall in the apartment area at \$40 for a ten-class session or \$5 per class. Wear comfortable clothing and bring an exercise mat to each class. For more information, contact Pat Flood, Ext. 7886; or Susan Monteleone, Ext. 7235.

WEEK OF 1/17/05

- Monday, March 17**
- Martin Luther King Day, BNL Closed**
No Bulletin on Friday, 1/21.
- Wednesday, 1/19**
- *400th Brookhaven Lecture**
4 p.m. Berkner Hall. In giving the 400th Brookhaven Lecture, Maurice Goldhaber, BNL Scientist Emeritus, will speak on "The Role of Empirical Rules in Predicting Directions in Science."
- Friday, 1/21**
- *Rock Concert, 'Hammer of the Gods'**
8 p.m., Berkner Hall. The rock band Hammer of the Gods will perform, sponsored by the BNL Music Club. Buy tickets, \$10 each, at the BERA Store in Berkner Hall. All are welcome.

WEEK OF 1/24/05

- Monday, 1/24**
- BSA Distinguished Lecture**
4 p.m., Berkner Hall. Sylvester James Gates Jr. to Give Physics Talk on 'Superstring/M-theory: A Lathe for Physics?' See story, page 1. All are welcome.
- 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.

— WEEK OF 1/1/05 —

- Wednesday, 2/2**
- LeCroy Equipment Demo**
11 a.m.-2 p.m., Berkner Hall. As a major supplier of high-performance digital oscilloscopes, LeCroy helps engineers validate the design of electronic products for the data storage, computer, semiconductor, and aerospace and defense industries. Dan Monopoli, 845-323-9072.

— WEEK OF 2/7 —

- Tuesday, 2/8**
- Identity Theft Presentation**
Noon-1 p.m., Berkner Hall. Presentation to be given by James Pascarella, Assistant District Attorney in the Economic Crimes Bureau of the Suffolk County District Attorney's Identity Theft Unit. Pascarella will discuss identity theft schemes and prevention methods. Pre-registration is necessary for this talk. Check your mailbox for registration forms. For more information, contact Michael Thorn, Ext. 8612, or mthorn@bnl.gov.

'River Dance,' 3/13

BERA will sponsor a bus trip to see the 1 p.m. show of River Dance at Radio City in Manhattan, on Sunday, March 13. The luxury bus will leave the Brookhaven Center at 9 a.m. and leave New York Center at 5:30 p.m. The cost is \$62 per person, for front mezzanine seats. About six seats remain. Buy tickets at the BERA Sales Office in Berkner Hall, 9 a.m. -3 p.m.

Men's Basketball Fun Tournament

A pre-season "for fun" men's basketball tournament sponsored by BERA will be held on Thursday, January 13, 5:30-9 p.m. The format will be double elimination or round-robin, four-on-four, games to seven, on the short full-court gym. Departments and divisions should enter a 4-man team by today, January 7. Individuals who enter will be assigned to a team.

BERA will provide free refreshments. To register, contact Jim Desmond, Ext. 4837, desmond@bnl.gov; or Bill Gunther, Ext. 7961, gunther@bnl.gov.

Hammer of the Gods in Concert, 1/21



The rock band Hammer of the Gods will appear in concert at BNL on Friday, January 21, at 8 p.m. in Berkner Hall. Beginning a winter concert series presented by the BNL Music Club, the Hammer of the Gods concert will feature the music of Led Zeppelin, the rock band that became famous in the 1970s.

Hammer of the Gods takes their audience back in time to recreate the look, feel, sound and excitement of a live Led Zeppelin show. *Good Times Magazine* recently called the band “the closest thing to the real thing that we’ve seen or heard in decades.” The band – a foursome consisting of guitar, vocals, drums and bass — was formed in 2002, and, since then, their popularity has grown, as they have been branching out to a variety of Long Island clubs and New York City venues.

Tickets for the Hammer of the Gods concert cost \$10 each and may be purchased at the door or in advance at the BERA Sales Office in Berkner Hall.

Other concerts in the winter series are scheduled as follows: Hooch & The Blusicians with Bob ‘Hoochie Coochie’ Paolucci, February 12; and The Gathering of the Slides III, featuring the Kerry Kearney Band and Little Toby Walker, March 5. Details to be announced.

The concert series is open to the public. All visitors to the Laboratory age 16 and over must bring a photo ID.

Classified Advertisements

Placement Notices

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

OPEN RECRUITMENT – Opportunities for Laboratory employees and outside candidates. MK2674. ASSISTANT PHYSICIST (S-1) – Requires a Ph.D. in physics or a related field, at least a years' experience in accelerator physics, a good understanding of beam physics, and experience with accelerator operation, beam optics, or simulation codes. Familiarity with the UNIX operating system and C++ programming codes is desirable. Research will involve performance improvements of the Relativistic Heavy Ion Collider and/or it's injectors, and the development of new accelerator projects. Under the direction of V. Litvinenko, Collider-Accelerator Department.

MK3553. POSTDOCTORAL RESEARCH ASSOCIATE – Requires a Ph.D. in physics, chemistry, electrical engineering or a related discipline with emphasis on laser technology, hands-on experience in the design and construction of solid-state amplifiers, the use of diagnostics for characterization of short or ultrashort laser pulses, and electro optic techniques. Knowledge of Ytterbium-doped host materials, diode pumping, fiberoptic amplifiers, temporal pulse shaping and Frequency-Resolved Optical Gating is desirable. Will participate in the demonstration of a state-of-the-art compact, direct diode-pumped laser system utilizing mixed gain media and fiber preamplifier stages. The system will be utilized at the BNL Accelerator Test Facility to generate sub-picosecond relativistic electron bunches and to extend the resolution of an advanced electro-optic technique for mea-

suring such bunches into the femtosecond regime. Under the direction of M. Babzien, Physics Department.

Motor Vehicles & Supplies

99 MERCEDES C280 - lthr., p/moonrft, tract. ctrl., 4 snow tires, Bose 6-CD, service recs., excel., 35K mi. \$15,500. Peter, Ext. 2913. 98 HONDA CIVIC DX - 5-spd., runs well, body kit, rims, must go. 87K mi. \$5,500/neg. 727-6714. 98 SATURN SC1 - 2-dr., 5-spd., excel. cond., best offer. 98K mi. Samantha Alvarado, Ext. 3372 or 821-9073. 95 TOYOTA CAMRY LE - good cond. 4-cyl., a/t, power tilt/slide moonroof, 6-disc CD, silver. 180K mi. \$4,200/neg. Amy, Ext. 3135. 88 JEEP CHEROKEE LTD - 6-cyl, 4L, 4dr, 4x4, a/c, a/t, c/c, p/w, p/l, runs well, reliable. Lenny, Ext. 4479 or 513-6067. RIMS - 20" chrome, Universal "Brazen," tires included, used one summer. \$1,500/neg. Mary, Ext. 6344.

Furnishings & Appliances

CLOTHES DRYER - Westinghouse, very good cond., \$50 or best offer. Eli, Ext. 7179. KITCHEN CHAIRS - ideal for breakfast bar. Oak, approx. 4 ft. high, elegant spindle back, 2 chairs \$50 ea. Chris, Ext. 3232. SLEEPER COUCH - Queen sleeper 84" brown couch w/big pillows, very comfortable, great cond. \$275. Ext. 7459 or 929-1981. WING-BACK CHAIRS - 2 chairs, in excel. cond., newly reupholstered in solid burgundy red, \$100/pr. 744-2095.

Audio, Video & Computers

MONITOR - ViewSonic model A75f, 17-inch, works well. \$25. James, Ext. 2432 or 821-9178. MONITOR - Gateway model EV700, 16-in. \$25; Printer, Canon model BJC 2110, \$10 Chris, Ext. 3232. VHS PLAYER - Audiovox portable, 4-in. screen, great for car, boat, camping. \$40. Chris, Ext. 3232.

Sports, Hobbies & Pets

SKI BOOTS - Nordica 892, size 9, almost new, used 5 days. \$30. Eli, Ext. 7179.

Tools, House & Garden

CORDLESS DRILLS - Two Dewalt DW991K-2 cordless drill/drivers. 14.4v, 2 batt./ea. Both brand new. \$100/ea. Ed, Ext. 3050. POWER INVERTER - Tripp Lite PV1200FC, new in box. never used. 1200w cont. pwr., freq. controlled. \$175. Ed, Ext. 3050. SNOW BLOWER - Toro, 4.5 HP, 2 cycle. \$225. Robert, 929-6421.

Miscellaneous

LUGGAGE SET - beautiful, 4-pc. set, never used, tags still on, wheels, handles, must see, ask \$75. Salvatore, Ext. 3749.

Body-Building Club
The BERA Body-Building Club membership dues for 2005 are now due. To join the club, send a \$25 check payable to BERA Body-Building Club to Elliott Levitt, Bldg. 134A, by Lab or U.S. Postal Service mail only. Include your life number, phone number, and e-mail and/or BNL mailing address. This is information needed to process your membership. To learn more about the club, visit www.bnl.gov/bera/activities/bodybldg/.

One-on-One Retirement Counseling

A TIAA-CREF consultant will visit BNL on Thursday and Friday, January 13 &14, and Tuesday and Wednesday, January 18 and 19, to answer employees' questions about financial matters. Sample topics are:

- The importance of protecting assets against inflation
- Finding the right allocation mix for you
- Learning about TIAA-CREF retirement income flexibility
- Comparing lifetime income vs. cash withdrawal options.

For an appointment, call Kathy Murphy, (866) 842-2053, Ext. 4625.

BSA Recital 1/26
Piano soloist Natalia Lavrova will give the noon recital on Wednesday, January 26, in Berkner Hall. Sponsored by BSA, the free concert is one of a series of noon concerts open to the public. All visitors to the Lab age 16 and over must bring a photo ID.

Community Involvement
SAFETY FIRST AID KIT - Use in every home, car, basic first-aid kits, \$6, being sold to benefit Cub Scout Pack 589. Ben, 921-9133. TSUNAMI RELIEF - for Sri Lanka: Checks or money orders made out to New York Buddhist Vihara Foundation (mark them "Disaster Relief") to help build 200 homes (see www.newyorkbuddhist.org); or to I-FREED (International Foundation for Revitalization, Empowerment, Education & Development), for five orphanages to shelter 400 children each (www.I-FREED.ORG) are being collected by Mahendra Kahanda, Ext. 2973, Bldg. 555, mkahanda@bnl.gov. To give cash, contact MK or Jean Petterson, Ext. 4302. Or send directly, ask for addresses. MK thanks many BNL donors for clothes and \$1,550 so far. For relief in India, one (tax-deductible) contact is the M.A. Center, a California non-profit corporation, (510) 537-9417 or donations@ammachi.gorg. For more information, e-mail H.D. Lee, hdlee@bnl.gov.

For Rent
BELLPORT - bdrm. avail. in fully furn. 3-bdrm., 2-bath house, outdoor Jacuzzi, avail. short or long term, 1/10-6/30. \$600/mo./neg. Giuseppe, Ext. 2008 or 806-4935. BELLPORT VILLAGE - 1-bdrm. ground floor apt., l/r, sep. kitch., study/dr, in 2-family home, within walking distance of village; util. incl. \$1,200/mo. Jim, 744-2095. CENTER MORICHES - 2nd fl. apt., 2 lg. rms., full bath, kit., priv. ent., prkg, gar., single non-smoker, no pets, near all. 10 min to BNL, heat incl., sec. req'd. \$850/mo. 929-4753. EAST MORICHES - share lg. fully furn. house, own 232 sq. ft. a/c bdrm., TV/Optimum/ph., prof. residential area, 9 mi. to Lab, responsible n/s. \$600/mo. 744-8386. EAST PATCHOGUE - new, 1 bdrm., ground level, l/r, kitch, full bath, pvt. ent., off-road parking, deck. no smkg./pets. Utilities extra. \$750/mo. 286-2160. MILLER PLACE - lg., fully furn. apt. w/ backyard, full kitch., ceramic tile bath, 12x18 bdrm. TV/Optimum/ph., prof. residential area, responsible n/s. \$850/mo. 744-8386.



United Way Campaign Reaches Goal

“Thanks to the generosity, support, and volunteerism of BNL employees, retirees, visitors and guests, I am happy to announce that we have reached our goal of \$120,000 to give to the United Way of Long Island,” says Jim Tarpinian, this year’s United Way fund drive coordinator for BNL.

On behalf of co-chair Maria Beckman, the United Way Committee and Captains, Tarpinian also thanks all who pledged support, with total donations of \$95,500, and those who organized and participated in various fund-raising events. Among them, the holiday auction, yard sale, 50/50 raffle, Southwest Airline ticket raffle, and sales of the BNL cookbook raised an impressive \$16,507. The international food tasting made \$500, COINSTAR donations amounted to \$340, and the holiday gift-wrapping effort made \$240. So, including the BSA matching donation of \$10,000 for volunteer hours and other miscellaneous fund-raising activities, the \$120,000 goal was achieved.

A thank-you breakfast is planned for January for all the United Way captains and committee members.

On-Site Service Station Inspections, Batteries, Tires
The on-site service station, Upton Industries, Inc., is ready to service your vehicle for new batteries or tires, a brake job, timing belt, whatever, while you are at work. Call Ext. 4034. **BNL Food Drive**
Remember! Turn in your BNL Food Drive cans! More contributions needed please!

For Sale
EAST MORICHES, NY - 3 bdrm., 2 full bath, l/r, d/r, den w/fireplace, completely renov. int., new siding, roof, windows, lg. prop., beach & dock rights. \$485,000 878-5449.

Wanted
CLOTHING - For SW Native American Indians: girl, size 12-18 mos., boy, 4-5 yr., men's work/outdoor clothing. Michele, 642-7442.

In Appreciation
To all my friends at BNL: thank you for your thoughts, presence, and generosity in helping myself and family cope with the sudden loss of my dear son, Keith. All of your support is deeply appreciated. — Gary Nintzel

Synergy Brass Ensemble Concert Date Changed From January 26 to March 23

The Synergy Quintet Brass Ensemble will give a concert at BNL's Berkner Hall at noon on Wednesday, March 23, not January 26, as originally stated in a previous Lab press release. Synergy notified BNL of this change after the press release was issued. More information will be printed in a future Bulletin.