

Fisk University Partners With BNL In Summer Student Program

Joseph Rubino D0570707



BNL's Aleksey Bolotnikov (second from left) mentors research on portable detectors done by: (from left) Enrique Jackson, Helen Jackson, and Stephen Babalola, doctoral students of Vanderbilt University.

As a result of a recent agreement between Fisk University and BNL, three Fisk graduates — Helen Jackson, Stephen Babalola, and Enrique Jackson — who are all pursuing their doctorates at Vanderbilt University, are doing research at the Lab this summer. They are working with Aleksey Bolotnikov, a researcher in the Lab's National Security & Nonproliferation Directorate, on various components of compact and portable cadmium zinc telluride radiation detectors. The small size of these detectors makes them of interest to DOE's National Nuclear Security Administration and the Department of Homeland Security, because the technology can be used to help detect the illicit movement of radioactive or nuclear materials.

Said Bolotnikov, "I find that the students offer new, fresh ideas. The students participating in this year's summer program are extraordinarily talent-

ed, so this has been a reciprocal learning experience. We are all putting our ideas together and are learning from each other."

While the three students come from Fisk and are at Vanderbilt, they have different experiences. Helen Jackson earned her B.S. in physics at the University of the District of Columbia and Tennessee State University. She earned her Master's in physics from Fisk and did graduate studies in astronomy at Swineburne University of Technology in Australia. At Vanderbilt, her area of interdisciplinary research is the Compton Imaging Camera.

Jackson's first love is science, but she is proud of her efforts that led to legislation adopting guidelines for home-schooled children in the state of Texas. She has volunteered to mentor children and has worked with reconstruction, medical and teaching crews in rural Mexico,

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Making It Happen: BNL/Fisk Agreement



Ralph James, Shirley Kendall

The BNL/Fisk University agreement to increase the number of qualified students from historically black colleges and universities to conduct research at BNL (see story, left) resulted from the efforts of Ralph James, Associate Lab Director for Energy, Environment & National Security and Shirley Kendall of the Lab's Diversity Office.

James has a long-term involvement with Fisk, including numerous publications and patents with Fisk faculty and winning two joint Research & Development 100 Awards for his research work there. He has also served on the university's advisory board for the Center of Photonic Materials and Devices and is currently an adjunct professor of physics there.

"Over the years I have served as a mentor to several students from Fisk University," James said. "I see this as the start of a successful and rewarding long-term partnership between the Lab and Fisk. This cooperation will go a long way toward establishing a steady pipeline of highly qualified underrepresented minorities as potential Lab employees."

Said Kendall, "I am very pleased that, through this agreement, promising students can come to do cutting-edge research at one of the nation's top labs. We have already had several other successful instances in which other departments have welcomed underrepresented faculty and students. Our role in the Diversity Office is to encourage and provide assistance as necessary to departments that wish to extend more opportunities for talented scientists, professionals, and students."

— Jane Koropsak

'The Place Is Here, The Time Is Now'

DOE's Director of Basic Energy Sciences Announces Award of CD-1 to NSLS-II Project

More than 450 participants in a major users workshop for the National Synchrotron Light Source II (NSLS-II) were among the first to hear the news that the planned successor to Brookhaven's existing Light Source will be located here.

Pat Dehmer, Director of DOE's Office of Basic Energy Sciences (BES), made the dramatic announcement that the project had been awarded "Critical Decision One" (CD-1) in the five-step DOE approval process at the opening plenary session for the two-day workshop. and it was greeted with sustained applause by the overflow audience in Berkner Hall.

Before announcing the project milestone, Dehmer detailed the hard work that went into bringing it about after DOE approved the Mission Need with the designation of CD-0 in August of 2005. Following the project's exhaustive but successful Lehman Review at the end of last year, it was then examined by Deputy U.S. Energy Secretary Clay Sell's largely nontechnical advisory board, which must approve every project of this magnitude. After all the panel's difficult questions had been answered, Sell approved NSLS-II's CD-1 status.

But while congratulating BNL on its achievement, Dehmer cautioned that there is much hard work ahead, and that nothing can be taken for granted. Urging the audience's "early and substantive involvement," she said, "There are opportunities that come to only a very few people in the right place at the right time. The place is here, the time is now."

Before Dehmer's announcement, Presidential Science Advisor and former BNL Director John Marburger congratulated the designers of the proposed NSLS-II for the "cleverness that has gone into the design, and the thought given to safety. NSLS-II is full of tricks to enhance photon strength and brightness," he said.

Marburger spoke of some of the challenges the project will face in light of the many competing priorities for science funding, noting that historically, big funding for science has gone to the space program and large machines like RHIC, but that "instrumentation and computing sustain all else."

"Facilities like NSLS-II are essential for solving the vexing problems of society," he said. "We need to find a way to ensure U.S. researchers continued development and access to facilities enabling atomic engagement with matter."

Workshop Solicits Input



Steve Dierker, Associate Laboratory Director (ALD) for Light Sources and Project Director for NSLS-II, welcomed the crowd of prospective users of the new BNL facility and asked for their assistance.

"At this meeting, you will have a chance to help chart the future course of this facility," he said. "Your input is crucial to our success."

Dierker gave an overview of the project, which he predicted will restore U.S. standing in synchrotron science, offering unprecedented spatial and energy resolution. Examples of research that NSLS-II will uniquely enable include examining the structure and properties of new electronic materials that scale beyond silicon and designer catalysts; self assembly, such as interactions between nanoscale building blocks and the kinetics of nanoscale assembly; and emergent behavior, such as the dynamics of charge and spin stripes in high-temperature supercomputers.

"We now know that it is largely at the nanoscale where materials' properties and functions are determined," he said. "Today, we need probes of materials much more powerful than current synchrotrons. We need to directly image at the nanoscale."

The project scope currently calls for accelerator systems including a half-mile-in-circumference storage ring, conventional facilities including an operations center and laboratory/office buildings, and experimental facilities capable of hosting at least 58 beamlines. Dierker also outlined plans for the Joint Photon Sciences Institute (JPSI), envisioned as an intellectual center for development and application of photon sciences and a gateway for users of NSLS-II. The building will offer laboratories, meeting areas and office space and will be paid for by New York State, which has committed \$30 million for its construction. *(continued on page 2)*



Historically Black Colleges, Universities Professors' Workshop Hosted at NSLS

A Historically Black Colleges and Universities (HBCU) professors' workshop was held at the National Synchrotron Light Source (NSLS) on July 19-20, linking 11 professors from nine institutions with the tools to become successful synchrotron users.

The workshop, organized by the NSLS and BNL's Office of Educational Programs (OEP), resulted in the formation of an HBCU User Consortium that will encourage further HBCU faculty and student involvement at the NSLS and BNL at large. Tennessee State University physics professor Orville Bignall was elected as its Chair.

OEP Manager Ken White welcomed the HBCU faculty and acknowledged OEP Administrator Noel Blackburn, who conceived and coordinated the workshop, and NSLS scientists Ron Pindak and Lisa Miller, who developed the technical program. The workshop is expected to be the beginning of a long-term relationship between the HBCU community and the user facilities and staff at the Lab, White said, starting with the NSLS. As a catalyst to move the program forward, White also outlined how OEP can assist in building these relationships. One example: bringing faculty members and their students to Brookhaven under the DOE and National Science Foundation (NSF) Faculty and Student Team

(FaST) program, which, at BNL, develops collaborative relationships between university and Lab researchers.

Lab Director Sam Aronson then addressed the participants, saying that he would like the group to grow in size, both in the number of professors and in the number of their students introduced to the NSLS and to National Synchrotron Light Source-II (NSLS-II).

"This will help us grow the user community for light source science at Brookhaven, which already is very large, but isn't addressing the full potential of the U.S. scientific community," Aronson said. "By inviting you here, we're trying to address what I see as a gap in our service and our country's

(continued on page 2)



Participants in the NSLS HBCU Workshop

CALENDAR OF LABORATORY EVENTS

- The BERA Store in Berkner Hall is open weekdays from 9 a.m. to 3 p.m. For more information on BERA events, contact Andrea Dehler, Ext. 3347, or Christine Carter, Ext. 2873.
- Additional information for Hospitality Committee events may be found at the Lollipop House and the laundry in the apartment area.
- The Recreation Building #317 (Rec. Hall) is located in the apartment area.
- Contact names are provided for most events for more information.
- 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, 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 Social & Cultural Club
Noon-1 p.m., Brookhaven Center, South Room, free beginners dance lessons. Rudy Alforque, Ext. 4733, alforque@bnl.gov.

Mondays: Pilates
Will resume in September.

Mondays: Jiu Jitsu Club
6-7:30 p.m. B'haven Center. All levels, ages 6 & up. \$10/class. Ext. 4556.

Mondays & Thursdays: Kickboxing
\$5 per class. Noon-1 p.m. in the gym. Registration is required. Christine Carter, Ext. 5090.

Mon., Tue. & Thu: Ving Tsun Kung Fu
Noon-1 p.m., B'haven Center, North Room. Taught by Master William Moy. Scott Bradley, Ext. 5745, bradley@bnl.gov.

Mon., Thurs., & Fri.: Tai Chi
Noon-1 p.m., B'haven Center N. Rm. Adam Rusek, Ext. 5830, rusek@bnl.gov.

Tues. & Thurs: Jazzercise
Will resume in September.

Tuesday & Thursday: Aerobic Fitness
Will resume in September.

Tuesday & Thursday: Aqua Aerobics
Will resume in September.

Tuesdays: Welcome Coffee
Will resume in September.

Tuesdays: BNL Music Club
Noon, B'haven Center, North Room. Come hear live music. Joe Vignola, Ext. 3846.

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/.

Tue., Wed. & Thu: Rec Hall Activities
5:30-9:30 p.m. General activities, TV, ping pong, chess, games, socializing. Christine Carter, Ext. 5090.

Wednesdays: On-Site Play Group
10 a.m.-noon. An infant/toddler drop-in event. Parents meet while children play. During July and August, the group meets informally at the playground in the apt. area.

Wednesdays: Ballroom Dance Class
Will resume in September.

Wednesdays: Weight Watchers
Noon-1 p.m. Michael Thorn, Ext. 8612.

Wednesdays: Yoga
Noon-1 p.m., B'haven Center. Free. Ila Campbell, Ext. 2206, ila@bnl.gov.

Thursdays: Reiki Healing Class
Noon-1 p.m., Bldg. 211 Conference Rm. Nicole Bernholz, Ext. 2027.

Fridays: Family Swim Night
5-8 p.m. BNL Pool. \$5 per family.

Fridays: BNL Social & Cultural Club
Noon-1 p.m., B'haven Center, South Room, free beginners dance lessons. 7-11:30 p.m. North Ballroom, Dance Social, workshops. Rudy Alforque, Ext. 4733, alforque@bnl.gov.

CIGNA: Tuesdays, Bldg. 400

A CIGNA Healthcare representative will be on site in Human Resources, Bldg. 400, on Tuesdays, to assist with any claims issues that you have been unable to resolve yourself. Janice Petgrave will be available for 30-minute meetings, by appointment only, 10 a.m.-1 p.m. Bring all pertinent documentation. To schedule, call the Benefits Office, Ext. 5126.

'The Place Is Here, The Time Is Now: DOE Announces CD-1 for NSLS-II Project

(cont'd)

Dierker described his management team that leads the project, including Jim Yeck, Deputy Project Director for Project Management; Satoshi Ozaki, Associate Director for the Accelerator Systems Division (whose replacement as Associate Director for the Accelerator Systems Division is Ferdinand Willeke, effective in August); John Hill, Associate Director for the Experimental Facilities Division; Marty Fallier, Associate Director for the Conventional Facilities Division; and Diane Hatton, Associate Director for the Project Support Division. Advisory committees for each of the three technical divisions meet twice a year to provide input and guidance to the project.

A Project Advisory Committee, which also meets twice a year, is charged with reviewing the project as a whole on a variety of matters. Beamline Advisory Teams, or BATs, will help define the scientific mission and technical requirement for the beamlines, including design

features and instrumentation concepts.

Ozaki described the latest design for the massive machine. In order to reach its world-leading technical goals, NSLS-II needs to produce ultrabright and stable synchrotron radiation, he said.

One of the main concerns

in designing the NSLS-II magnet arrangement, or lattice, is ensuring that it produces low emittance, a beam characteristic where the electrons are confined to a small distance and have nearly the same momentum. At NSLS-II, Ozaki said, this will be achieved with devices called damping

wigglers, which cause the electrons to oscillate transversely and emit radiation. The energy lost to the synchrotron radiation is then restored to the beam in the forward direction by radio-frequency accelerating sections, which reduces the transverse spread of the particles. The use of damping wigglers for emittance control is a novel approach for a light source, but a well-established technology for high-energy physics accelerators and colliders, Ozaki said.

Further optimization of the lattice and beam stability, as well as engineering and design, cost estimating, and schedule planning are in progress for preparation of the CD-2 review in November, said Ozaki.

Part Two of this article, including discussions of planned facilities described, advanced science for a world-leading light source, and weighing the options for user access, will appear in next week's Bulletin.

— Kay Cordtz and Kendra Snyder



Pictured above in Berkner Hall with other attendees during a break at the NSLS-II Users Workshop are Michael Holland (above, center), DOE Brookhaven Site Office Manager; and speakers Satoshi Ozaki (left), Associate Director for the Accelerator Systems Division in the NSLS-II Project; and Chi-Chang Kao, NSLS Chair.

Integrated Safety Management (ISM) Team Visit, 8/6-10

Integrated Safety Management (ISM) is the framework used to help guide all work at BNL, and is a key requirement of BNL's contract with DOE. ISM's five core functions call for the Lab, as well as each employee, to define the scope of work; identify and analyze all hazards; develop and implement controls for those hazards; work within these controls; and provide feedback to improve safety in future work.

Next week, August 6-10, BNL is hosting the entire ISM team — about 20 individuals — for a planning visit in preparation for the ISM audit later this month. Although the team will not be doing official inspections next week, they will be entering work areas around the site. During this opportunity for first impressions, the BNL community is reminded to keep a positive attitude about integrated safety management, be mindful of good housekeeping, wear your BNL ID badge, use personal protective equipment as required, and follow traffic rules.

Following is the seventh in a series of general ISM questions for managers, supervisors, and staff. The text below the questions gives examples of processes that may be appropriate as references for understanding the Lab's ISM program.

For more information, contact Steve Coleman, Ext. 8705 or coleman@bnl.gov.

Question for Managers: How do you make sure your staff has the training, "subject matter expert," or other support they need to help ensure they work safely?

Question for Staff: How do you know you have the training you need (or whom to call if you have safety questions) in order to perform your work in a safe and environmentally protective manner?

Response: To help ensure that you have the proper training to perform work safely, the Brookhaven Training Management System provides a database for tracking training requirements and training completion. Managers/Supervisors receive notifications in advance of qualifications expiring. Environment, Safety and Health (ES&H) staff and ES&H coordinators are available to assist staff with ES&H matters or questions. Staff are assigned job-training assessments, which define the technical qualifications required. Training requirements are documented on experimental safety reviews, work permits, standard operating procedures, and radiological work permits, and qualifications are verified by supervisors and work control coordinators/managers before work is authorized to start.

Historically Black Colleges, Universities Professors' Workshop Hosted at NSLS

(cont'd)

scientific community," Aronson said. "By inviting you here, we're trying to address what I see as a gap in our service and our country's utilization of scientific talent."

During the first day's session, the professors received an overview of the facility, synchrotron techniques, and user statistics and access from NSLS Chair Chi-Chang Kao. Associate Lab Director for Light Sources Steve Dierker then discussed plans for NSLS-II, stressing that, in addition to a diverse user base, the state-of-the-art light source also will need new technicians, engineers, and administrative staff to keep it running.

"I would really like to see connections made in these next two days that go beyond your immediate participation," Dierker said. "I ask that you act as ambassadors to your institutions and talk to your colleagues who might not have had the opportunity to attend this workshop. Spread the word about the exciting scientific opportunities here as well as the opportunities in these other areas."

BNL's Diversity Office Manager Shirley Kendall told the participants that because the idea for the workshop came from Brookhaven scientists and staff,



she is confident that the Lab is on the right track to enhance its future talent pool and strengthen its alliance with HBCUs.

NSLS accelerator physicist Boris Podobedov gave a basic overview of synchrotron radiation and the inner workings of the NSLS machine. OEP Administrators Scott Bronson and Jen Clodius followed with a demonstration on how remote beamline access can bring large facilities, like the NSLS, into the classroom. Using the Virtual Room Videoconferencing System, Bronson linked the participants with live video and screen shots taken from beamline X26A, where University of Chicago researcher Tony Lanzirotti answered questions about his research and videoconferencing technology.

Next, NSLS scientists Paul Northrup, Elaine DiMasi, and Lisa Miller presented introduc-

tory talks on x-ray absorption spectroscopy, diffraction/scattering, and imaging, respectively.

The professors then gave 10-minute presentations about their areas of research interest, spanning from environmental studies of river water to DNA methylation in cancers. They were later matched with BNL scientists with similar research backgrounds who gave focused tours of the experimental floor and helped the participants identify what beamlines and techniques would best fit their research needs.

On the second day, a videoconference was held with six NSF program directors, who outlined scientific program information, NSF administration, and the grants, awards, postdoctoral fellowships, and undergraduate research opportunities available to the professors and their students.

The last segment of the workshop included a writing tutorial, led by NSLS scientist Ron Pindak and User Administrator Kathy Nasta, which focused on the development of competitive beam time proposals for independent research at the NSLS. Afterward, the professors each met with one or more BNL scientists to work on a draft version of an NSLS proposal.

"Overall, the program was great and very well put together," said Alabama State University microbiology professor Boakai Robertson, who plans to return to the NSLS to work on an experiment detecting heavy metals in microorganisms. "I was very impressed with the NSLS staff: how they received us, and how they answered our questions."

During the closeout session, the professors chose to continue their collective involvement at the Lab with the formation of an HBCU User Consortium.

"The opportunity to interact with researchers of like interests and share ideas for collaboration was very good," said Oakwood College chemistry professor Kenneth LaiHing. "I am very optimistic about having faculty from minority-serving institutions work with scientists from BNL and the NSLS."

—Kendra Snyder

Then & Now — Mentorship Programs at BNL

The Brookhaven Bulletin of March 21, 1975, shows a photo of Dwight Miller, a pre-dental student at Jackson State University in Mississippi, who was spending a semester working with BNL scientist Harold Atkins in the nuclear medicine lab of the Medical Department.

Miller was one of ten students participating in 1975 in the Brookhaven Semester Program, in which students spent the morning doing lab work with a research advisor, and the afternoons in classes given by Lab scientists, or in attending seminars and conferences. The program had started in 1968, after two years of planning and fund-raising efforts organized principally by Assistant Director R. Christian Anderson of BNL's Office of Scientific Personnel. For that first year, Anderson had worked closely with Isaac Cole of BNL's Personnel Division and Amos Kennedy of Grambling College, Louisiana, to bring six students from Grambling, Tougaloo College in Mississippi, and Prairie View A&M University and Texas College, both in Texas, to spend a semester at BNL to develop their scientific education.

The Semester Program was not the first student program organized by Anderson at BNL. By 1976, the Lab was celebrating its 25th year of the annual Summer Student Program, which Anderson had initiated in 1952. In that 25th year, 640 students applied from all over the U.S. to spend 11 weeks doing research and classes with BNL scientists who volunteered as mentors. Fifty-five juniors and seniors from 41 institutions were selected to join the Lab for that summer.

These early programs to bring talented students into close contact with "real" science have evolved over time with some changes in format or name, but, in essence, they remain the same, thanks to the commitment of the BNL administration and the inexhaustible dedication of volunteer scientist mentors. Examples of "now" programs for students from historically black colleges and universities, both ongoing and planned, are described in stories on page one; and next week, on August 8 and 9, the present 200 or so students from all over the U.S. will present posters and talks to show the work they have accomplished this summer at BNL (see notice at right).

— Liz Seubert

Fisk University Partners With BNL

(cont'd)

Brazil, Kenya and Thailand. Of the opportunity to work at BNL, she says, "I am learning something new every day and appreciate how much my mentor has already taught me. Working at the Lab and fulfilling my lifelong goal of becoming a physicist is a dream come true for me."

Stephen Babalola earned his B.S. in industrial chemistry at University of Ilorin, Nigeria, and his M.S. in physics from Fisk in 2004. He hopes to explore the world of nanotechnology by working in nanoscale fabrication of semi-conductors. "I consider the opportunity to work at Brookhaven as the starting point of my career as a scientific researcher. This has been a great experience, personally and professionally," said Babalola.

In addition to his scientific accomplishments, Babalola possesses another talent. He is a gifted artist. Carlton Wilkinson, an adjunct photography professor, has showcased Babalola's artwork at a gallery in Nashville. Many of the paintings are included in Vanderbilt University's private collection. Babalola's works of art will also be shown in Berkner Hall on August 9 and 10 (see photo below).

"I see painting as a way to relax," Babalola said. "My uncle Joshua Akande, a great painter, showed me that art is a special language and every time

I face a canvas I should use it to communicate my mood and personal experiences. Someday, I would like to research the interrelationships of art and science. That would be a perfect combination for me."

Enrique Jackson received a B.S. from Dillard University, an M.S. in materials science from Norfolk State University, and a second M.S. in physics from Fisk.

While at BNL, Jackson was asked to construct a new experimental set-up for measuring carrier transport properties of cadmium zinc telluride crystals and detectors. Jackson has already co-authored many papers on a wide variety of scientific topics but he has always found time to mentor undergraduate students in math, chemistry, and physics.

"I thoroughly enjoy mentoring, not just academically, but working with students to serve as better role models in their community and global society is important to me," he said.

"This summer has been a productive partnership between all of the students, my BNL colleague Anwar Hossain, and myself," said Bolotnikov. "Working with these talented students and helping them embark on a career in science is so important that I am happy to mentor as many students as the Lab offers me."

— Jane Koropsak

At right: Dwight Miller, Jackson State University, a 1975 semester student
Below: Assistant Lab Director R. Christian Anderson



2007 Summer Internship Symposium, 8/8 & 9 Posters, Presentations, Closing Ceremony

The Office of Educational Programs (OEP) invites the Lab community to attend the poster sessions, oral presentations, and closing ceremony of the 2007 summer internship programs, to be held next week on Wednesday and Thursday, August 8 and 9.

On Wednesday, in Berkner Hall lobby, 11:15 a.m. -1:15 p.m., all are encouraged to attend a poster session displaying the students' research, which may be discussed with the students. On Thursday, in Berkner auditorium, 9-11:45 a.m., students will make short oral presentations on their work. A second poster session will be held in Berkner lobby, 12:30 -1:45 p.m.

Then, from 2 to 4 p.m. in the auditorium, OEP Manager Kenneth White will welcome all to the closing ceremony. Speakers will include DOE Brookhaven Site Office Manager Michael Holland, U.S. Congressman Tim Bishop, and keynote speaker Bill Valdez, Director of the Office of Workforce Development for Teachers and Scientists. Refreshments will follow.

BERA Trip to Coney Island, 8/11 Includes Brooklyn Cyclone Baseball Game

On Saturday, August 11, join BERA for a day at Coney Island; enjoy the ocean beach, amusement park, and aquarium, then see the ball game at 6 p.m. The \$20 per person includes the ball game ticket and the coach fare. Amusement park and aquarium admissions are separate. The bus will leave the Brookhaven Center at 11 a.m. and leave Coney Island at 9 p.m. (or at the end of the game). Advanced paid reservations are required. Buy your non-refundable ticket at the BERA Store on weekdays, 9 a.m.-3 p.m.

Safety Glass Office Day Change

Effective August 1, the Safety Glass Office in Bldg. 211 will be open only on Wednesdays from 9 a.m. to noon and 1 to 4:30 p.m. This is a change from the past Friday hours of operation.

Retirement Counseling

A TIAA-CREF consultant will visit BNL on Thursday, August 9; Tuesday, August 14; and Friday, August 24; to answer employees' questions about financial matters.

The consultant will help you: understand the importance of protecting your assets against inflation; find the right allocation mix; learn about TIAA-CREF retirement income flexibility; and compare lifetime income vs. cash withdrawal options. For an appointment, call Suzanne Leone, (866) 842-2053, ext. 4601.

Arrivals & Departures

— Arrivals —

Dennis CaltieriITD
Pankaj ChaudharyBiology
Kenneth Goodman Plant Eng.
Luis NievesITD
Asma Saeed..... NSLS II

— Departures —

Kristen De Pass CEGPA
Bjorn JunkerBiology
Brigitte Paap.....Biology
Ronald Weider C-AD

School Supplies Needed

School supplies for needy children are being collected at the BERA Store. Your gift will be much appreciated.

Vending Services Survey

The BNL community is asked to participate in a survey about the vending machines that deliver food, drinks, candy, etc., on site. These services are provided through the New York State Commission for the Blind Business Enterprise program. Opinions expressed in the survey can help Lab personnel to track customer satisfaction and pinpoint areas in need of improvement. The survey is available at <http://intranet.bnl.gov/survey/vending/open.asp>.

View Art Meeting Science, 8/9 & 10



Fisk University graduate Stephen Babalola, a physics doctoral student at Vanderbilt University who is doing research this summer at BNL (see story, page one), will hold an exhibition of his paintings in Berkner Hall on Thursday, August 9, 9 a.m.-4 p.m.; and on Friday, August 10, 11:45 a.m.-1:30 p.m. All are welcome.

CALENDAR

— THIS WEEKEND —

Friday, 8/3

Visit BNL Science Learning Center
Noon-1:30 p.m. Science Learning Center, Bldg. 935, corner of E. Fifth Ave. and Railroad St. All Lab community invited to try interactive exhibits, visit the 3-D visualization theater. See why more 25,000 elementary school children enjoy coming here each year. Some science-related toys for sale. An adult must accompany children under 14 years old.

— WEEK OF 8/6 —

Monday, 8/6

BWIS Talk, 'The Power of Questions'
Noon. Berkner Hall. Dorothy Leeds, president of Organizational Technologies and Theater for Learning, will talk on "The Power of Questions." All are welcome to this free talk. See notice on page 4.

Wednesday, 8/8

***Summer Interns' Poster Session**
11:15 a.m.-1:15 p.m. Berkner Hall lobby. All are welcome. See notice at left.

Thursday, 8/9

***Summer Internship Symposium**
9 a.m.-4 p.m. Berkner Hall, Office of Educational Programs. Event includes oral presentations, a poster session, and a closing ceremony, 2-4 p.m. in Berkner auditorium. See notice at left for list of speakers. Refreshments will follow.

*Art Exhibit

9 a.m.-4 p.m. Berkner Hall. Stephen Babalola art exhibit. See photo, notice below, left.

Friday, 8/10

*Art Exhibit

11:30 a.m.-1:30 p.m. Berkner Hall. Stephen Babalola art exhibit. See photo, notice below, left.

Dog Days Blues Festival

6 p.m. Brookhaven Center. Featuring Kerry Kearney Band, the 3AM Band, and the Jacks O'Diamonds Band. Sponsored by the BNL Music Club and the Long Island Blues Society. Open to the public, tickets are \$10. Visitors to the Lab of 16 and over must carry a photo ID. See notice on page 4.

— WEEK OF 8/13 —

Saturday, 8/18

Mem Shannon & 'Bluzman' Blues
8 p.m. Berkner Hall. Mem Shannon and Sam "Bluzman" Taylor. Sponsored by the BNL Music Club and the Long Island Blues Society, the events are open to the public. Visitors to the Lab age 16 and over must bring a photo ID. Tickets are \$15. Buy at the BERA Store, at www.ticketweb.com or at the door of the show. Call 631-344-3846 for more information or see www.liblues.org.

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

Can You Spare a Can?



Remember to bring a can of food — peanut butter, tuna, vegetables, ravioli, or other — to add to the donations in the food bins found in most buildings for the BNL Food Drive. Your gift is so needed. Thank you.



Learn Fire Safety at the Firehouse, 8/5

BNL's Summer Sundays open days for the public are well Bunder way. Each week, through August 19, a different tour will be featured. Both adults and children can also enjoy a variety of entertaining activities, including the Whiz Bang Science Show and the Brain Teasers exhibit each week. Celebrate the Lab's sixtieth anniversary, and collect commemorative souvenirs while supplies last.

Summer Sundays are offered free, and no reservations are needed. Visitors may arrive any time from 10 a.m. to 3 p.m. The Whiz Bang Science Show will be staged at 10:30 a.m., noon, 1:30 p.m. and 3 p.m. each Sunday. All visitors age 16 and over must bring a photo ID.

August 5 - Visit the Firehouse & Learn About Safety

Tour the Lab's firehouse and climb aboard construction equipment. Meet the people who make the Lab safe and secure. Learn about safety in your home, through activities for all ages.

Future Summer Sundays

August 12 - Today's Forecast Calls for a Balloon Launch

August 19 - A Perfect Liquid Exists at RHIC

Classified Advertisements

Placement Notices

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

LABORATORY RECRUITMENT - Opportunities for Laboratory Employees

MATERIAL HANDLER (LG-3, three positions: 2 temporary/1 term appointment) - Performs a variety of laboring and manual tasks in stores operations such as moving, loading, unloading, sorting and storing of materials. May operate motorized equipment pertinent to stores operations. Keeps stores facilities in neat condition. Procurement & Property Management Division. Send resume to tbuck@bnl.gov, referring to Position No. TB 4376.

ADMINISTRATIVE ASSISTANT (A-4) - Requires a bachelor's degree in a business related field or equivalent with 5 years relevant experience, as well as excellent oral and written communication skills. Must be able to operate independently and exercise a high degree of discretion and judgment. Must be able to multi-task, work in a fast-paced office, have strong organization and decision-making skills as well as excellent interpersonal skills. Knowledge of MS Office Programs and PeopleSoft HR required. Responsibilities will include department HR functions including guest administration, hire requisitions, and the processing of collaborator and consultant appointments and payments, as well as the processing of student appointments and new employee introduction liaison duties. National Synchrotron Light Source. Send resume to morales@bnl.gov, referring to Position No. RM 3269.

OPEN RECRUITMENT - Opportunities for Lab employees and outside candidates.

POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in biochemistry, chemistry, or plant biology. Preference will be given to candidates with experience in enzymology and/or metabolic engineering, as evidenced by relevant peer reviewed publications. The successful candidate will perform research designed to understand the factors that lead to unusual fatty acid production in model plant systems as a basis for the production of renewable feedstocks in plants. Under the direction of J. Shanklin, Biology Department. Send CV to felicia@bnl.gov, referring to Position No. FH 3901.

POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in biochemistry, chemistry, or plant biology. Preference will be given to candidates with experience in enzymology and/or metabolic engineering, as evidenced by relevant peer reviewed publications. The successful candidate will perform research designed to understand the factors that lead to unusual fatty acid production in model plant systems as a basis for the production of renewable feedstocks in plants. Under the direction of J. Shanklin, Biology Department. Send CV to felicia@bnl.gov, referring to Position No. FH 3902.

SR. TECHNOLOGY ANALYST/LINUX ADMINISTRATOR (I-5) - Requires a bachelor's degree in engineering, computer science or closely related field and at least 1 year of relevant experience. Hands-on experience with x86-based systems and kernel-level knowledge of RedHat Linux operating systems are required. Good understanding of the I/O characteristics of Linux-based systems is desirable. Experience with virtualization (vmware, xen) and open-source batch (condor, sge, pbs, etc) software is desirable. Working knowledge of shell scripting, Perl/Python, basic programming skills with C/C++ and web-based languages, and basic knowledge of relational databases is desirable. Flexibility to work independently and in a team-like environment is essential. Responsibilities include daily management of the RACF Linux Farm, addressing user community requests, carrying out hardware/software installation & upgrades and assisting in the evaluation of new technologies for the Linux Farm. Physics Department. Send resume to morales@bnl.gov, referring to Position No. RM 4564.

Motor Vehicles & Supplies

06 FLAGSTAFF 831BHSS - 30"TT, sleeps 8, 2 slides, 2 BR, pull out couch, heated mattresses/hold tanks, low GVWR, excel. cond. \$25,800/neg. Ext. 7132 or 793-4551.

05 HARLEY D. SPORTSTER CUSTOM 883C - wh/chr, excel. cond., windshd, saddle bags, hway. lights, fwd. ft. ctrls. . 3500 mi. \$6,100/neg. Ext. 3505 or 929-6467.

04 CHEVROLET SILVERADO 1500 - LS, 5.3L, 4x4, 8cyl, DRL, am/fm/cd, c/c, p/b, p/s, p/w, a/c, a/t, tow pkg, keyless ent., excel cond. 40K mi. \$21,000/neg. Ext. 7132.

04 DODGE 1500 QUAD CAB - a/t, 8 cyl., hemi, 4x4, 4wd, loaded, 20" chr rims, tow pkg., tool bx, mint cond., 31K mi. \$21,000/neg. Heather, Ext. 4138 or 779-3226.

04 LEXUS RX330 - awd, xm, am/fm, cd6 navig. back-up-camera, heated, lthr. seats, spotless, dk blue, warr. 40K mi. \$34,000. 744-3144.

01 FORD F150 WORK VAN - great cond. 11K mi. \$5,000/neg. 300-6681.

00 TOYOTA CAMRY LE - V6, all pwr., beige, very well maint'd. 105 mi. \$6,250/neg. Beth, Ext. 3689.

00 HYUNDAI ELANTRA GLS SEDAN - new am/fm cd radio, new tires, rear spoiler, powered m/roof,ABS, pwr. locks, pwr. windows, Cruis 82K mi. \$3,500. 335-9651.

98 ACURA TL-3.2 - a/c, moon roof, white, leather, v. clean. 95K mi. \$7,200. 891-9430.

96 FORD VAN E-150 - XLT, 5.8L, 7 pass, a/c, c/c, tow pkg., am/fm/cd, excel. cond. 144K mi. \$5,200. Ext. 4542 or 874-2838.

95 TOYOTA CAMRY - great cond., orig. owner, gar., serviced reg., no accidents, no problems. 140K mi. \$2,500. 269-0784.

92 FORD LARGE BOX TRUCK - sacrifice, must sell, white, reliable, great work truck, int. shelving, roof racks, new brakes, a/c, 116K mi. \$3,500/neg. John, 849-4705.

88 NISSAN PATHFINDER XE - an/fm/cd, new tires and brakes, runs well. 124K mi. \$1,200. 331-3766.

FLOOR MATS - new, grey, fits 96-99 Ford Taurus also Mercury Sable, paid \$50, must sell for \$20. Ext. 5068.

OFFROAD WHEELS/TIRES - 4 ProComp Mud Terrain, Rock Crawler Series 97, blk steel rims 33x12, 50R15. brand new, \$600. 821-1783.

TIRES - 1, P215/70 R15, Michelin all-season radials, less than 2K use, \$100/both. 286-5897.

TIRES - 4 Michelin, P195/70R 14, 40K mi., gd. for 20K more, b/o. 744-7419.

Furnishings & Appliances

CAPTAIN'S BED - unfinished, pine, gd. cond. w/6 lg. drawers, \$275/obo. 893-5457.

DESK - pine, 3 drw, \$15, five drw bureau 50's style, \$30, both in gd. cond. Ext. 7647.

END TABLE - solid wood; 3 drw; 19"x34", \$25; 9 drw console bureau 19"x74", \$30; both in gd. cond., must pk up. Ext. 7647.

PIANO - upright, gd. cond., just needs tuning, you pick up, reduced to \$600. 286-1018.

SOFA - 8', loveseat 5', great cond., call for pic., \$225/obo; free working upright freezer, u pick up. 395-9610.

WOOD WINE CABINET - below w/antique-steel bottle and glasses rack above, call for e-mailed photos, \$120. Ken, Ext. 8463 or 878-7655.

Audio, Video & Computers

LAPTOP - HP Pavilion ZT3000, 1.7GHz centrino, 768mbB, 60GB, 15.4" WSXGA, dvd, wifi, WinXP, SP2, case, \$550. Frank, Ext. 4620.

LASER PRINTER - SAMSUNG ML-2010, 1 yo, b/w, like new, less than 100 pages printed, \$40. Ext. 5068.

SUBWOOFERS - Atlantic Technology, #pbm70, 10" woofer, 125 watts, sell as pair ask., \$300. Edward, Ext. 7160.

Sports, Hobbies & Pets

5th Wheel Camper - 1995 SE 102 by NuWa, 35 ft. 2 pushouts, v/gd. cond., ask for pics, \$17,500. C. Lewis, 286-8166.

AUTOBIKE - purple, 26", women's model, 6-spd automatic transmission, excel. cond., \$85. Ken, Ext. 8463 or 878-7655.

BIKE RACK - SARIS Bones 3, holds 3 bikes, used once, \$100. See website: www.saris.com/p-299-bones-3-bike.aspx. Ext. 6387 or 631-793-7080.

BIKE SEAT - child's up to age 2, Tike, top-of-the-line Topeak, suspension, padding, great cond., new \$110, ask. \$25. Ext. 5195.

FISH AQUARIUM - glass, new 20 gal. w/ screen lid, Perfecto brand; double-sealed, cost \$50, ask. \$25/obo. Sue, Ext. 4931.

HAMSTER CAGE - glass w/secure screened top; water bottle, wheel, \$15. Ext. 4340.

KASTLE SNOW SKIS - 170 length, w/ski bag and poles b/o. Sue, Ext. 4931.

LIGHT METER - Sekonic L398, v gd. cond., tested and working, ask. \$100/neg. Julian, 814-282-0873.

PET TAXI/ PORTABLE KENNEL - pet carrier for sm. animal, plastic, excel. cond., can be used on airplane, \$10. Ext. 5635.

WET SUIT - full, 1 piece, 3mm, black/blue, children's xl, fits teenage 5' 110 lb approx., excel. cond., \$45. Bill, Ext. 2906 or 929-6189.

Miscellaneous

CRIB BEDDING BEARY G'NIGHT SET - 2 Boyds bear interactive bumper, ruffle, & comforter, lt. green/multi pastel, \$40 ea; 1 match lamp \$20. Dorene, Ext. 4153.

GAS BBQ - portable, w/stand and travel bag, \$40. 289-9727.

SLIDING DOOR - builders' grd., 9 yrs. old., just removed, gd. cond., \$75/obo, u pick up. John, Ext. 7859 or 331-4792.

TICKET - Gaints, 8/11 & 8/25, sec 115 30 yd. line row 32 w/prepaid prkg. at stadium, no shuttle req'd., face value/obo. 487-5717.

Yard & Garage Sales

ROCKY POINT - Sat. 7/28, 30 King Rd. proceeds go to Feral Cat Rescue, something for everyone! Donna, 398-8024.

Free

DOG - Maltese, full bred, 4 yrs. old, needs home. 722-3816.

KITTENS - 7 calico, 1 grey and white, 6 males, 2 females, extremely cute. Ext. 7774 or 729-3052.

WOODWORKING TOOLS - 24" scroll saw old but in working cond., Craftsman 6 1/8" Joints/planer missing parts. Joe, 751-2117.

Wanted

BUNK BED SET - asap, prefer one in excel. cond. Wang, Ext. 5673 or 886-1483.

PRE-SCHOOL TEACHER - NYS Certified pre-school teacher needed for Upton Nursery School. P/T (T,W,T) 16 hrs. a week. Christine, Ext. 5090 or 457-3231.

For Rent

CENTER MORICHES - 1 bdrm. apt., lg eik, full bath, nice area, close to BNL, util. incl. \$800/mo. 878-1178.

CORAM - 1 bdrm. apt., priv. grd. level ent., no smkg/pets. \$800/mo. Antonietta, 828-8687/252-1829.

MT SINAI - 2 bdrm, eat-in kitch, l/r, central a/c, full bath. Approx 900 sq. ft. All utilities incl. except phone. No smkg or pets please. \$1,500/mo. Ed, 474-1205.

RIDGE - 1 bdrm, a/c, all util. incl., igp, share wop, \$550/mo./neg. Rao, Ext. 3387 or 882-8962.

ROCKY POINT - renovated 4 bdrm. house, 2 mo. sec., no pets, \$1,900/mo. Joe, 399-3158.

ROCKY POINT - 1 bdrm. apt., kit., l/r, bath, pvt. drway/ent., no smkg/pets, 1 mo. sec., util. not incl. \$850/mo. Ron or Kim, 821-3287.

SHIRLEY - rm for 1, kitnet., full bath, sep ent., furn., tv, wireless int., all incl. 5 min to stores/beach., 1 mo. sec., 15 min to Lab., no pets/smkg. \$650/mo. Ext. 8321.

SHOREHAM - Lge furn apt. 1 bdrm, l/r, d/r, full kitch & bath, a/c, util. incl., no smkg/pets, pvt.ent/drwy, sing. or couple only. 1 mth sec. 5 min to Lab. \$1,000/mo. Ext. 5263 or 631-744-2545.

WADING RIVER - clean 1 bdrm., pvt. ent./deck, full kit/bath, newly painted, cable, incl. all util., no smkg/pets, 1 mo. sec. \$1,100/mo. Sue, Ext. 4931 or 929-2867.

LENOX, MA - 2 bdrm. timeshare unit, avail. 11/17 thru 11/24. \$900/mo. Tom, 909-1498.

For Sale

BELLPORT - 4-BR. ranch, 2 bth, l/r w/dble opening fp to den, d/r, eik, oak flrs, screened deck on priv. yard, laundry rm, fin. bsmt: w/4th BR, bar, full bth, 2 rms; gar., 2 sheds, sprinklers, gt. cond. \$425,000; 949-7797.

MEDFORD - 1 br condo, Blue Ridge, new windows, kit & bath. c/a/c, d/r, golf course, in/outdoor pool, cafe and more! \$225,000/neg. 680-0507.

MIDDLE ISLAND - 5 bdrm., 3.5 bath, l/r w/fp, d/r, 2 car gar, lgp, laundry rm., full fin. bsmt., great location, shy 3/4 acre. \$459,000 Elvin, 516-481-2680.

BERA Trips, Events

Below are some of the trips, etc., available. To buy tickets and for more information, go to the BERA Store, or see www.bnl.gov/bera/.

August: Duck tickets are available. <http://www.liducks.com/>

Fri., 8/10 - 8 p.m. Gentlemen Prefer Blondes! Bellport Playhouse, \$39

Fri., 6/31 - 4 p.m. dep. Yankees vs. Tampa Bay - \$44

Sat., 7/8 - Tony Bennett at Radio City, 3:30 p.m. dep. for 8 p.m. show, \$60 pp includes bus

Sat., 7/8, 7 a.m. dep. Army Football at West Point, \$45.

BWIS Talk on 'The Power of Questions,' 8/6

Sponsored by Brookhaven Women in Science, Dorothy Leeds, president of Organizational Technologies and Theater for Learning, will speak in Berkner Hall on "The Power of Questions," on Monday, August 6, at noon. All are invited to attend the talk.

Leeds contends that asking the right questions empowers people in their careers and in their personal lives. Thoughtful questions can improve relationships, stimulate initiative and self-discovery, help people gain control in difficult situations, avoid costly communications mistakes, expand options, and persuade and influence others. In her talk, she will discuss how questions can help you get what you want, and what types of questions are "smart."

Leeds is an internationally known business, sales and communications consultant, who counts among her clients numerous Fortune 500 companies as well as the American Medical Association and the CIA. She is the author of ten books on communications, career and consumer issues, including *The 7 Powers of Questions*, *Smart Questions*, and *Powerspeak*.

An experienced media personality, Leeds reviews films for MSNBC and appears frequently on broadcast and cable television, on such programs as NBC's "Today," and CNBC's "Smart Money." She has had successful careers as an educator, Broadway actress, knitwear designer and manufacturer, and advertising executive.

For more information, contact Kathleen Walker, Ext. 7105 or kwalker@bnl.gov.

Dog Days Blues Festival, 8/10

On Friday, August 10, the Kerry Kearney Band, the 3AM (3 American Men) Band, and the Jacks O'Diamonds Band will perform at 6 p.m. in the Brookhaven Center, as part of the Dog Days Blues Festival. Sponsored by the BNL Music Club and the Long Island Blues Society, the event is open to the public. Tickets are \$10 each: buy them at the BERA Store or at the door the night of the show. Visitors to the Lab age 16 and over must bring a photo ID.

Headlining the Dog Days Blues Festival will be Long Island guitarist/songwriter and singer Kerry Kearney (see photo) and his band, well known for performing in small venues as well as in front of thousands at the annual Riverhead Blues



Festival. Veteran musicians 3AM will open the show with a wide variety of classic songs from the 60s, 70s, 80s, and 90s, as well as contemporary music. Jacks O' Diamonds, a high-energy trio, perform original compositions and versions of songs by Jimi Hendrix, B.B. King and Stevie Ray Vaughn. — Jane Koropsak

the Bulletin

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

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