

William Studier of Biology Wins R&D 100 Award For New Method That Simplifies Protein Production

William Studier of the Biology Department has won a 2004 R&D 100 award for developing a new process that simplifies the production of proteins in the widely used T7 gene expression system. The T7 expression system, developed and patented at BNL in the 1980s and 1990s, is used worldwide by academia and industry to produce specific proteins within bacterial cells. Studier's research is funded by DOE's Office of Biological & Environmental Research within the Office of Science, and by the Protein Structure Initiative of the National Institute of General Medical Sciences of the National Institutes of Health as part of the New York Structural Genomics Research Consortium.

R&D 100 Awards are given annually by *R&D Magazine* to the top 100 technological achievements of the year. Typi-

cally, these are innovations that transform basic science into useful products. The awards will be presented in Chicago on October 14.

Studier's new method simplifies the production of many proteins in parallel. Proteins do most of the work in biological systems. They digest food for energy; build biological structures, such as muscles and neurons; and regulate biological functioning, for example, by hormones. The Human Genome Project and other genome sequencing projects are revealing the full complement of human proteins and the proteins of many other organisms. Expression systems such as the T7 system allow biologists and medical scientists to obtain useful amounts of individual proteins for analyzing their structures and functions.

Commercially available through EMD Biosciences, Novagen brand, as the Overnight Express™ Autoinduction System, the new method relies on mechanisms by which bacteria sense the presence of nutrients in their surroundings and select which ones to use. An appropriate mixture of nutrients allows the bacteria to grow vigorously and then, at the appropriate stage of growth, switch automatically to producing the target protein without any intervention by the experimenter. The new method will be useful for biomedical research or for industrial production of proteins to use as enzymes, diagnostics, vaccines, therapeutics and targets for developing pharmaceuticals.

"The new autoinduction system is very convenient," Studier said. "Instead of spending much



William Studier

Roger Stoulenburgh 010803704

of the day monitoring the growth of many different cultures to get optimum conditions for producing proteins, we simply inoculate cultures late in the day, let autoinduction do the work for us, and collect our proteins the next morning. An added bonus is that we usually get much more protein."

Studier started his research on

T7 — a common bacteria-eating virus — when he first joined BNL in 1964. "The T7 expression system came out of basic research," Studier said, "and the autoinduction system is also an application of basic knowledge. As so often happens, basic research led to useful applications in unexpected ways."

— Diane Greenberg

BSA Distinguished Lecture George Saliba to Talk on Science In Renaissance Europe, 8/19

Columbia University Professor George Saliba will give a BSA Distinguished Lecture titled "Whose Science is Arabic Science in Renaissance Europe?" on Thursday, August 19, at 4 p.m. in Berkner Hall. BSA Distinguished Lectures are sponsored by Brookhaven Science Associates, the company that manages BNL, to bring topics of general interest before the Lab community and the public. All visitors to the Lab age 16 and over must bring a photo ID.

In his lecture, Saliba will investigate the relationship between Arabic/Islamic science and that of Renaissance Europe, especially in the fields of planetary theories and mathematical astronomy. Incorporating manuscript evidence from Arabic and Latin sources, the talk will be concentrated on the manner in which scientific ideas crossed cultural, linguistic, and religious borders. By focusing on one case of this intricate transmission of ideas, Saliba will illustrate the inaccuracy of labels such as Arabic, Latin, Western, or Greek to describe scientific activities that do not fit comfortably within such designations.

Two specific points will be made in the lecture: First, Arabic/Islamic science was not a continuation of Greek science, but in the field of astronomy in particular, it harbored a genuine rebellion against the Greek legacy. Second, the European Renaissance was not an attempt to recover Greco-Latin antiquity; rather it was an attempt to incorporate the latest findings of Arabic/Islamic astronomy into Renaissance science.

George Saliba earned two degrees from the American University of Beirut: a B.S. in mathematics, in 1963, and an M.A. in education, in 1965. He earned two more degrees from the University of California, Berkeley: an M.S. in Semitic languages, in 1970, and a Ph.D. in Islamic sciences, in 1974.

After becoming a visiting professor at New York University and Columbia University, Saliba joined the faculty at Columbia in 1979, where he has become Professor of Arabic and Islamic Science. Saliba has been the recipient of numerous awards, fellowships and honors. He was elected Fellow of the National Humanities Center, 1997-1998, and he won the Kuwait Foundation for the Advancement of Science Prize for Arabic/Islamic Heritage – Astronomy, in 1996.

— Diane Greenberg



George Saliba

DOE Scientists Sample the Skies

Scientists from DOE's Argonne National Laboratory (ANL), BNL, and Pacific Northwest National Laboratory (PNNL) are taking to the skies above Western Pennsylvania for one month to sample the air for aerosol pollutants and evaluate their effects on Earth's climate.

The research is part of the International Consortium for Atmospheric Research on Transport and Transformation (ICARTT) experiment, an effort by many separate institutions and government agencies to conduct a joint regional air quality and climate study of unprecedented scope. The Atmospheric Sciences Program within the Office of Biological & Environmental Research (OBER) within DOE's Office of Science is contributing about \$300,000 in funding for the study. All measurement data from DOE will be made fully and freely available to both the scientific community and the public.

"One main goal is to understand how pollutants from the Northeastern U.S. affect climate and air quality as they spread over the North Atlantic Ocean," said Peter Daum of BNL's Environmental Sciences (ES) Department, lead researcher for the BNL/DOE team. Other ICARTT collaborators include the National Atmospheric & Oceanographic Administration, the National Aeronautics and Space Administration, the University of New Hampshire, and others in Canada and Europe (see www.al.noaa.gov/ICARTT/).

The DOE scientists, funded and coordinated by OBER, focus on evaluating the effects of aerosol pollutants on Earth's radiation balance and climate forcing for a part of the study known as the NorthEast Aerosol eXperiment (NEAX). Team members working with Daum include: Larry Kleinman, Yin-Nan Lee, Gunnar Senum, and Jian Wang, all of BNL's ES; Judy Lloyd, State University of New York at Old Westbury; Jun Zheng, graduate student from Stony Brook University; Brian Giebel, Old Westbury undergraduate; and Wes Reid, Southampton College undergraduate. On July 20, they started conducting regional air-sampling flights from

Latrobe Airport, located about 25 miles east of Pittsburgh, Pennsylvania. They are scheduled to finish by August 15. The aircraft, a G-1 Gulfstream operated by PNNL, carries research-grade instruments developed at both BNL and PNNL. Additional ground-based instruments deployed by ANL and PNNL scientists provide complementary data.

"This large multi-agency study is a good example of how organizations with common goals can collaborate, pool resources, and accomplish something that they cannot do by themselves," said Daum.

Aerosols such as sulfur compounds result from emissions by fossil-fuel-burning power plants and other industrial sources. By themselves, and by affecting the brightness of clouds, they may increase the amount of incoming sunlight that is reflected

back into space, thereby exerting a partial cooling effect on Earth's climate. "But because their concentrations are highly variable and because they are removed from the atmosphere fairly quickly, it is difficult to assess these effects and the impact of aerosols on climate without collecting data in the ambient atmosphere," said Daum.

So the scientists participating in NEAX are conducting studies of aerosol formation and growth in plumes from point sources such as power plants, and in urban plumes with different characteristics. They are also conducting air-mass scale studies to see how the chemical, microphysical, and optical properties of aerosols evolve as the air-mass ages and is transported to the east away from its sources. Ultimately, they hope to characterize how much aerosols and aerosol precursors in the Midwest contribute to the aerosol burden over the western North Atlantic Ocean.

"Lack of knowledge about how aerosols are formed and distributed in the atmosphere and how they change the properties of clouds is a key factor preventing more accurate predictions of climate change," Daum said. — Karen McNulty Walsh

Note: The DOE scientists hosted reporter visits at the Latrobe airport on Monday, August 2. For a story, see www.pittsburghlive.com/x/tribune-review/trib-regional/s_206329.html.



Peter Daum

Roger Stoulenburgh 010803704



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.

Monday: BNL Gospel Choir

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

Mon., Tues., & Thurs.: Kickboxing

\$5 per class. Mon. & Thurs. noon-1 p.m. in the gym; Tues., 5:15-6:15 p.m. in the gym; Thurs., 5:15-6:15 p.m. in Brookhaven Ctr. Registration is required. Christine Carter, Ext. 2873.

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

Noon-12:45 p.m., Brookhaven Center North Room. Adam Rusek, Ext. 5830 or rusek@bnl.gov.

Tuesdays: Welcome Coffee

10-11:30 a.m., Apartment area gazebo/playground. 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.

Tues. & Thurs: Upton Nursery School

The school is on summer break. Contact Alison Tilt, Ext. 4465, or tilt@bnl.gov, for information on Sept. enrollment.

Wednesdays: On-Site Play Group

10 a.m.-noon. Apartment area gazebo/playground. An infant/toddler drop-in event. Parents meet while children play. Kati Petreczky, 821-4131.

Wednesdays: Farmer's Market

11:30 a.m.-1:30 p.m., Berkner Hall parking lot.

Wednesdays: Weight Watchers

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

Wednesdays: Yoga Practice

Noon-1 p.m., Brookhaven Center. Free. Ila Campbell, Ext. 2206.

Wednesdays: Open Chess Night

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

Thursdays: Reiki Healing Class

Noon-1 p.m., Bldg. 211. Nicole Bernholz, Ext. 2027.

Thursdays: FreshDirect Delivery

3:30-5:30 p.m., Berkner Hall parking lot.

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.

THIS WEEKEND

Saturday, 8/7

*Dinner/Dance Cruise Round NYC

4:30 p.m. Leave BNL on luxury bus for evening cruise around Manhattan, including dockside cocktail reception, buffet-style dinner, dancing, all for \$82, with cash bar. Some tickets are still available at the BERA Sales Office in Berkner Hall, open today until 3 p.m.

— WEEK OF 8/9 —

Wednesday, 8/11

*Sunset Cruise on Port Jeff Ferry

5:15 p.m. The Hospitality Committee invites all to join a trip from Port Jefferson to Bridgeport and back, 5:30-9 p.m., to enjoy the water, reggae music, and a fun ride with friends and family from BNL. Bring a picnic supper or buy snacks, etc., on board. **ATTENTION — NEW GROUP RATES AVAILABLE, CORRECTED FROM NOTICE ON PAGE 4:** \$9 each, children age six and under are free. Buy tickets at ferry office before boarding the ship.

Thursday, 8/12

Picnic for Students & Postdocs

5 p.m. at the gazebo by the ball fields. All students and post docs are invited to come and listen to music, play volleyball and other games. Snacks and dinner heroes will be provided — bring your own beverages.

Integrated Safety Management Awareness DOE to conduct on-site assessment next week, 8/9-12

A DOE team will be on site the week of August 9 to conduct an assessment of BNL's Integrated Safety Management System (ISM). Similar to the original successful ISM assessment conducted in May of 2000, this assessment will include interviews with BNL man-

agers, supervisors, and staff, as well as field observations of work areas and work in progress.

If an auditor questions you, answer his or her questions courteously, factually, and provide any supplemental information requested. An escort from the Envi-

ronment, Safety, Health & Quality (ESH&Q) Directorate will accompany all team members and will be available to assist staff during the assessment.

The following is a sampling of questions that may be asked by the ISM assessment team.



Q. Managers and Staff: What is the policy for Environment, Safety, Security & Health (ESSH) at the Lab?

A. The Lab Director issued a new ESSH policy on April 19, 2004. All workers should be familiar with this policy, which includes the following highlights:

- Provide a safe and healthy workplace
- Comply with all BNL requirements
- Integrate ESSH into our research and operations
- Comply with DOE's Integrated Safeguards & Security requirements
- Conserve resources and reduce risks
- Work with stakeholders
- Participate in community and government ESSH initiatives.

The complete policy is available on the Environment, Safety, Health and Quality Directorate (ESH&Q) website at <http://www.bnl.gov/ESHQ/ESSH.asp> or via the A to Z site index under ESSH Policy.

Q. Managers: How do you ensure that members of your staff understand the work you want them to do?

Q. Staff: How does your manager communicate what is expected of you in your job?

A. R2A2s, work permits, standard operating procedures, strategic planning meetings, pre-job briefings, and one-on-one meetings are all ways of communicating the expectations for job and safety performance. Supervisors and managers are expected to encourage open discussion and continuous communication about safety.

Q. Managers: How do you ensure your staff works safely? How do you know and communicate the hazards that are part of the work and the safety/environmental requirements, and hazard controls that are part of the work?

Q. Staff: Do you know how to perform your work safely? Do you know the hazards that are associated with your work? Do you know how to protect yourself from those hazards?

A. The Work Planning and Control for Experiments and Operations subject area is used to identify and communicate hazards and controls. Standard Operating Procedures identify requirements for safe operations. Staff training is kept current to ensure all are properly trained to control hazards. Staff interacts with managers to address safety procedures and concerns.

Q. Managers: How do you balance safety and/or environmental-related issues with operational demands?

Q. Staff: What should you do if you are unable to complete a scheduled task safely?

A. Safety and environmental issues take precedence over operational demands. Guidance to balance priorities may be found in BNL SBMS subject area, Work Planning and Control for Experiments and Operations. Staff must notify managers if they are unable to complete an assigned task in a safe manner.

Q. Managers: What convinces you that the necessary hazard controls (including training) are in place before you allow your staff to do their work?

Q. Staff: How do you know when it is "okay" to start a particular task/experiment/job?

A. The Work Planning and Control for Experiments and Operations subject area gives guidance to ensure that hazard controls are in place and the work fits within the facility capabilities/requirements as documented in the Facility Use Agreement. Standard Operating Procedures are routinely reviewed and kept current. Approval signatures are indicated on Work Planning documents. Managers can access the Brookhaven Training Management System (BTMS) to check employee training requirements and status.

Q. Managers: How do you determine whether you can be more effective or efficient in ensuring that your staff works safely?

Q. Staff: How do you inform your manager/supervisor of the ways that you see to do your work safer or better? Have you ever done that? What was the result?

A. Self-assessment and staff feedback activities associated with the work planning are encouraged. Managers actively solicit suggestions from staff as a way of obtaining feedback. We strive toward continued two-way communications.

Q. 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?

Q. Staff: How do you know that 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?

A. The Work Planning and Control for Experiments and Operations Subject Areas establish the requirements for ensuring staff has the appropriate training through the job training assessment process. The Brookhaven Training Management System provides a database for tracking training requirements and training completion. ES&H staff and ES&H Coordinators are available to assist staff with ES&H matters or questions.

Q. Managers: How do you know your staff complies with the procedures, safety/environmental requirements, and hazard controls that you establish?

Q. Staff: What does your supervisor expect of you with regard to following/working within/complying with procedures, safety/environmental requirements, and hazard controls when you perform your work?

A. Self-assessments, inspections, employee feedback and routine "walk-arounds" provide two-way communication that validates compliance requirements and staff concerns.

Q. Managers: Are you responsible for the safety of your staff? How are those responsibilities communicated to you?

Q. Staff: Do you understand your responsibility regarding personal and coworker safety? Are you authorized to stop work? (When/why/how?)

A. ES&H standards of performance on SBMS and R2A2s establish that:

- Managers shall analyze hazards, authorize work and ensure that work is performed within established safety controls; and prevent pollution, minimize waste, conserve resources and minimize risks.
- Supervisors shall ensure that staff is competent, trained, and qualified for work and assign work accordingly; ensure that staff comply with Lab policies, standards, procedures and regulations. Supervisors also ensure mitigation of all identified hazards.
- Safety is a line responsibility for managers, but every worker is responsible for their own safety. Everyone has the right to STOP WORK if they perceive imminent danger to a person, property or the environment. STOP WORK procedures are available at <http://training.bnl.gov/>

Q. Managers: What is your response to employee environment, safety, security, and health (ESSH) concerns?

Q. Staff: What mechanisms are available to you to report ESSH concerns?

A. All BNL employees, facility users, contract workers and guests have an obligation to comply with the Lab's ESSH regulations. Everyone is required to report any unsafe conditions within the workplace that may threaten their physical well-being or violate ESSH or other relevant standards.

Avenues for reporting ES&H concerns are:

- Alert your line management.
- Report to the department or division's ES&H coordinator or facilities support representative.
- Alert personnel in the ESHQ Directorate by calling the BNL safety hotline at Ext. 8800.
- Those covered by a labor agreement may address ES&H concerns through the labor-grievance process.
- If you still believe a condition or practice violates BNL's standards, you may contact the Employee Concerns Manager, Ext. 2888. If all other avenues have proved unsatisfactory, the concerned individual may call DOE's Brookhaven Area Office, Bldg. 464, Ext. 4363.

Every person is expected to:

- Encourage employees to bring forth safety issues, concerns and ideas.
- Appropriately respond to questions, issues and concerns without judgment or prejudice.
- Follow through and provide feedback to the employee about the status or disposition of their concern.

For more information about the ISM assessment, contact Steve Hoey, at Ext. 7936 or hoey@bnl.gov, or Roy Lebel at Ext. 6392 or lebel@bnl.gov.
— Jane Koropsak

Science Museum Open House, Noon, Fridays

All BNLers are invited to come and experience the hands-on exhibits in the BNL Science Museum on Fridays, now through August 13, 11:30 a.m.-1:30 p.m. All children under 14 must be accompanied by an adult. Visitors may interact with the Mars exhibit, experience the shadow-wall display, and learn about wonders of science using materials from the Science Museum school programs.

Picnic for Students & Post Docs, 8/12

On Thursday, August 12, at 5 p.m., all students and post docs are invited to show up and enjoy a free picnic at the gazebo in the ball fields. Come and listen to music, play volleyball and other games. Snacks and dinner heroes will be provided — bring your own beverages.

Science Future on Display

Research poster session
At Berkner Hall and research facilities



On Wednesday, August 11, the Lab community is urged to come and look over the 95 posters on display in Berkner lobby, 11 a.m.-2 p.m., as BNL student researchers present the work they have accomplished during the weeks they have been at the Lab this year. The interns include juniors, seniors, undergraduates, graduates, and teachers, and they have been participating in several programs run by the Office of Educational Programs (OEP): Community College Institute (CCI) Faculty & Student Teams (FaST), Homeland Security Scholars & Fellows (DHS), Pre-Service Teachers (PST), and Science Undergraduate Laboratory Internship (SULI).

Then, on Thursday, August 12, the posters will be augmented by 100 more posters, which are being brought to the Lab by science, mathematics, and engineering students from the New York City Louis Stokes Alliance for Minority Participation (NYC LSAMP) program in the City University of New York and displayed with the BNL summer interns' work. These posters will be on view 9:30 a.m.-1:15 p.m. To prevent overcrowding and insure that the work will be seen by more of the Lab community, in addition to Berkner, the posters will be shown at four more poster display areas on Thursday: in the lobbies of the Chemistry Department, Bldg. 555; the Physics Department, Bldg. 510; the National Synchrotron Light Source Department, Bldg. 725, and the Medical Department, Bldg. 490.

In conclusion, from 1:30 p.m. on Thursday August 12, all are invited to a closing ceremony and presentation of certificates that will include remarks by NYC LSAMP Principal Investigator Neville Parker, DOE Brookhaven Site Office Manager Michael Holland, and Lab Director Praveen Chaudhari, as well as a talk on "Congress Scientific Direction for the Future," by U.S. Representative Tim Bishop.

Says Noel Blackburn of OEP who has been coordinating the poster sessions, "It is only through the support of the Lab's scientific staff and management that these students are able to make the research contribution they have made over the summer. We at OEP work hard to bring good students to the researchers and we appreciate the efforts of the mentors. It really shows in the quality of the student research."

Jazz Guitarist Craig Boyd Gives Concert at BNL, 8/20

Jazz guitarist Craig Boyd, performing with his ten-piece band, will appear in concert at Berkner Hall on Friday, August 20, at 8 p.m. Boyd will play selections from his debut CD, called "Back on Track," at the public concert, which is sponsored by the BNL Music Club. All visitors to the Lab age 16 and over must bring a photo ID.

Craig Boyd started taking guitar lessons at the age of six and after playing in bands since age 11, chose music as his career. He has worked as a composer, arranger, producer and studio guitarist for name groups and solo artists. Currently, Boyd is Academic Chair of Music at Suffolk County Community College, and he is also a producer and engineer for numerous musicians, including Grammy Award-winning Dave Holland.

Buy tickets for the show, at \$20 each in advance at the BERA Sales Office, weekdays, 9 a.m. -3 p.m. At the door, tickets will cost \$25 each. For more information, call Ext. 3846.

SCCC Sociology Course Offered on Site

The following course will be offered on site for the Fall 2004 semester and will satisfy requirements for most Suffolk County Community College degrees. The class will be held on Wednesday evenings. Already, 10 people have signed up, but a minimum of 14 students is needed.

SO11 - Introduction to Sociology

Fundamental principles and concepts of sociology including culture, interaction, norms, values, institutions, stratification and social change. No prerequisite, 3 credit hours.

Employees taking college courses may apply for tuition assistance. BNL offers tuition advances or reimbursements at a rate of 75 percent for undergraduate courses. For more information, contact Starr Munson, Ext. 7631 or munson@bnl.gov.

Elder Care Info Available On BNL Clinic Website

In an effort to address the growing need for information regarding elder care issues, a list of agencies that provide assistance in a wide range of services involving elder care is now available on the Human Resources & Occupational Medicine (HROMC) Division's Health Promotion web site at <http://www.bnl.gov/hr/occmcd/HPP.asp>.

Compiling the list dates back to June, which was "Elder Care Month," when HROMC organized a full month of programs dedicated to elder care. Weekly talks were held at noontime addressing benefits for the elderly, elder law and estate planning, nursing home options, and promotion of good health for seniors. Then, the Elder Care Expo, held on June 16, brought to Berkner 35 exhibitors who shared information about various agencies and aids for senior citizens. Approximately 400 Lab employees, retirees and community elders attended this event. SeniorNet, a volunteer organization of senior citizens, dedicated to teaching seniors about the use of computers, raffled off a computer which was won by BNL employee Juan Aguilar of the Plant Engineering Division.



About 400 Lab employees, retirees, and community elders attended the Elder Care Expo held in Berkner Hall on June 16, when 35 exhibitors shared information and aids for seniors. For more information on these agencies, see the Human Resources & Occupational Medicine (HROMC) Division's Health Promotion web site at www.bnl.gov/hr/occmcd/HPP.asp.

Arrivals & Departures

Arrivals

Anshul Airen Medical
Courtney Patterson .. Quality Mgmt.
Antonio Zambano Mat. Sci.

Departures

Carmen Benkovitz Env. Sci.
Manuel Calderon
De La Barca Sanchez Physics
Youssef Farah Magnet
Jonathan Hock C-A
Obasanjo Jacobs Medical
Zizhong Li Medical
Janet Petroski Chemistry

In Memoriam

Irene Ozols, who had joined the Physics Department as a research services assistant I on October 2, 1967, and had retired as a scanner on June 30, 1983, died on October 13, 2003. She was 78.

Benjamin Ackert, who had joined the Central Shops Division as a machinist B on January 5, 1948, died at age 85 on May 28, 2004. He had retired as a tool and instrument maker group leader on October 17, 1982.

Henry Petrulle, who had joined the then Alternating Gradient Synchrotron Department as an intermediate technician on October 29, 1962, and had retired as a technical specialist on May 31, 1981, died at age 84 on May 28, 2004.

Miguel Correa, who had come to BNL on July 17, 1972, as a custodian in the Plant Engineering Division, and, on October 5, 1994, had retired from the Supply & Material Division as a stores clerk, died on June 12, 2004. He was 60.

APAA Picnic, 8/13

The BERA Asian Pacific American Association (APAA) invites everyone to the club's Annual Summer Picnic, on Friday, August 13, at 5:30 p.m., with a rain date of Saturday, August 14, 5:30 p.m.

The picnic will be held at the BNL Gazebo, near the ball fields. All are welcome to come and have fun in the sun — bring beach chairs, umbrellas, and be ready to play volleyball, frisbee, and soccer. A variety of Asian cuisine from local restaurants will be served.

Philippine Tinikling will be demonstrated and Japanese drumming will be performed by Taiko Tides of Stony Brook University. For adults, the cost is \$5, for students and children, \$3. Children under six years old are free. For more information, contact Marie Van Buren, Ext. 4727, or Beth Lin, Ext. 3372.

Port Jeff Ferry Cruise Musical Cruise, 8/11 Price Correction

The Hospitality Committee has obtained a new group rate of \$9 per person, children under six free, for all who join the Wednesday, August 11, Port Jefferson Ferry Sunset Cruise, 5:30-9 p.m., featuring reggae music by King Wellington & The Earth Peoples. This is the correct price, not the \$14.50 price given in the notice on page 4. Meet at the Port Jeff ferry office by 5:15 p.m. and buy tickets at the office. For more information, contact Cindy Ottmann at 849-2646 or cjottabb@optonline.net.

Calendar

(continued)

Friday, 8/13

*BERA APAA Summer Picnic

5:30 p.m. at the gazebo near the softball fields. The BERA Asian Pacific American Association (APAA) invites everyone to the club's Annual Summer Picnic. Rain date of Saturday, August 14. All are welcome. See notice on page 3 for more information.

— WEEK OF 8/16 —

Monday, 8/16

St. Joseph's College Demo

10:30 a.m.-2 p.m., Berkner Hall. Representatives from St. Joseph's College will present BNLers with information on courses and degree programs. Lucille Curley, 446-3252.

Tuesday, 8/17

*Graphite Reactor Cleanup Info

2-4 p.m. Berkner Hall. Information session on proposed Graphite Reactor cleanup plan. All are welcome. Open to the public. Visitors to the Lab of 16 and over must carry a photo ID.

Thursday, 8/19

*BSA Distinguished Lecture

4 p.m., Berkner Hall. George Saliba, Columbia University, will give a talk on "Whose Science is Arabic Science in Renaissance Europe?" All are welcome to this free lecture, which is sponsored by BSA. Visitors to the Lab of 16 and over must carry photo ID. See story, page 1.

*Graphite Reactor Cleanup Info

7-9 p.m. Berkner Hall. Information session on proposed Graphite Reactor cleanup plan. All are welcome. Open to the public. Visitors to the Lab of 16 and over must carry a photo ID.

Friday, 8/20

*Jazz Guitarist Craig Boyd in Concert

8 p.m. Berkner Hall. See notice below, left.

— WEEK OF 8/23 —

Tuesday, 8/24

*Graphite Reactor Cleanup Public Mtg.

7-9 p.m. Berkner Hall. A public meeting will be held on the proposed Graphite Reactor cleanup plan. All are welcome. Open to the public. Visitors to the Lab of 16 and over must carry a photo ID.

— WEEK OF 8/30 —

Thursday, 9/2

BNL Career Network Group Meeting

Noon, Berkner Hall, Room A. All are welcome. Cathy Wehrmann, Ext. 7823.

— WEEK OF 9/6 —

Tuesday, 9/7

Caring Friends Meet

Noon, Berkner Hall, Room D. All are welcome to join an informal support group serving as a resource for individuals experiencing grief following the loss of a loved one. Call Pat Hein, Ext. 3962, or Gerry Van DerLaske, Ext. 3476.

Thursday, 9/9

Blood Drive

9:30 a.m.-3 p.m., Brookhaven Center. Those eligible to donate are people in good health between the ages of 17 and 75 who weigh at least 110 pounds. Restrictions may apply to individuals from the United Kingdom and Europe. Donors should have a photo ID and know their social security number. Contact Susan Foster at Ext. 2888, or e-mail donate_blood@bnl.gov with your name, phone extension, and preferred time to donate.

— WEEK OF 10/4 —

Thursday, 10/7

BNL Career Network Group Meeting

Noon, Berkner Hall, Room A. All are welcome. Cathy Wehrmann, Ext. 7823.

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.

Tour The National Weather Service, Sunday, 8/8



On Sunday, August 8, visitors at BNL's Summer Sunday Tours will learn about the National Weather Service Forecast Office, which is located at the BNL site in Upton, NY. Come learn about weather, what creates it, and how you can be prepared for it. See a tornado simulator, the Doppler radar, and computer tracking at the National Weather Service. And, yes, the weather balloon will be launched at 3:30 p.m.

Tours are free and no reservations are needed. Visitors may arrive any time between 10 a.m. and 3 p.m. All visitors of age 16 and over must bring a photo ID.

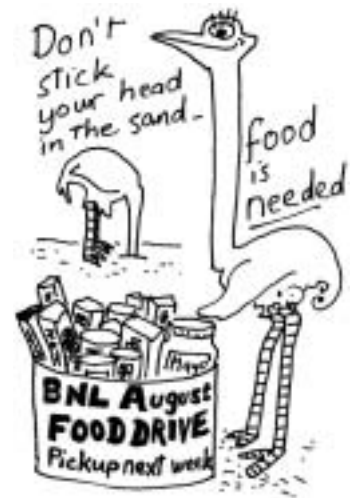
Additional attractions are: a new hands-on "Light & Color" exhibit, produced by the Oregon Museum of Science & Industry; an exhibit on the 2003 Nobel Prize in Chemistry, researched in part at BNL; a demo by high-school students of a robot they built; and the "Whiz Bang Science Show," with new special effects, to be given at 10:30 a.m., noon, 1:30 p.m. and 3 p.m.

(At left) The Doppler radar tower at BNL

Join Sunset Cruise With Music, 8/11

The Hospitality Committee invites the BNL community of all ages to bring family and friends and join the Wednesday, August 11, Port Jefferson Ferry Sunset Cruise, 5:30-9 p.m., featuring reggae music by King Wellington & The Earth Peoples. Meet at the Port Jeff ferry building by 5:20 p.m. and buy tickets on the boat, \$14.50 per person. Bring a picnic supper or buy snacks and drinks on board.

For more information, contact Cindy Ottemann at 849-2646 or cjottabb@optonline.net.



Donors, drop gifts of canned food into the BNL Food Drive containers in each building. Thank you!

American Physical Society Posting

SCIENCE JOURNAL EDITORIAL ASSISTANT - The American Physical Society (APS), the world's largest association of physicists and a prestigious publisher of scientific journals, seeks a dynamic and personable individual to work as an Editorial Assistant at our editorial office in Suffolk County, Long Island (70 miles east of NYC / LIE Exit 68). Responsibilities include assisting our offsite Editors in processing manuscripts, checking in new manuscripts and tracking their progress through the editorial system, processing author/referee correspondence and technical editing. B.S. degree in one of the sciences is required (M.S. degree a plus). Some knowledge about electronic publishing or experience with the Internet and WWW applications is desirable. Must have excellent interpersonal communication skills, be self-motivated, organized, detail oriented, able to meet deadlines and be flexible. Starting salary is in the mid-30s to mid-40s range depending on education, applicable skills and experience. APS offers career stability and an outstanding benefits package. Visit our web site at www.aps.org. Send cover letter and resume via e-mail, fax or U.S. mail to: Director of Human Resources, American Physical Society, 1 Research Road, Box 9000, Ridge, NY 11961, e-mail: edresumes@aps.org, fax: 631-591-4155.

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. MK4193. POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in molecular biology, biochemistry, cell biology, or a closely related field. The successful candidate will participate in developing a new technology for identifying and quantifying functional sequence-specific binding protein (e.g. transcription factor) interaction sites in whole genomes and applying this technology to identify the binding sites of the p53 tumor suppressor in the human and mouse genomes. The technology combines chromatin immunoprecipitation (ChIP) with that of Genome Signature Tags (Dunn et al., Genome Res. 12 (2002) 1756-65). A candidate with a strong background in recombinant DNA methods, nucleic acid

biochemistry, and/or mammalian cell cycle control is preferred. Under the direction of C. Anderson and J. Dunn, Biology Department.

NS3181. PROJECT ENGINEER I (P-9, reposting) - Requires 10+ years of progressive engineering and project management experience to act as Chief Engineer for the PHENIX Experiment. Bachelor's degree in engineering required with an advanced degree in mechanical engineering greatly preferred. Excellent technical, analysis, management, interpersonal, communication, and decision-making skills are required as well as sustained, demonstrated leadership skills. The ability to interact effectively with a large international collaboration of scientists is essential, as is successful experience in directing engineers, designers, technicians, and tradespeople. A PE license is highly desirable as is proficiency with Autocad, FEA, and Microsoft Project. The successful candidate will be expected to provide a wide range of mechanical engineering and management support for the PHENIX experiment at RHIC. Will be responsible for work involving the operation and maintenance of the PHENIX detector and support systems, management of PHENIX technical support staff, and the design, integration and installation of upgrades. Responsibilities include mechanical engineering design and analysis, convening of design and safety reviews, work planning, project and resource scheduling. Physics Department.

NS2503. RESEARCH ENGINEER I (P-9, part-time, term appointment) - Requires a BS (MS preferred) in mechanical engineering with 10+ years experience in nuclear power plants (NPP) and NRC/DOE safety regulation. Detailed knowledge of NPP systems is also required. Work will be primarily related to the NRC Proactive Materials Degradation Assessment program and the nuclear power plant (NPP) License Renewal program. Work may also include reviews of detailed safety analysis reports for nuclear facilities. Nuclear Energy & Infrastructure Systems Division/Systems Engineering and Safety Group. Energy Sciences & Technology Department.

Motor Vehicle & Supplies

- 04 TOYOTA COROLLA LE - a/t, a/c, p/s, p/w, remote keyless entry, excel. cond., 5K mi., \$14,800. Marty, Ext. 7225.
- 03 YAMAHA R6 - blk. w/red flame, full race exhaust, mint cond., warr., more, 12K mi., \$7,500. Gordon, Ext. 7182 or 433-7136.
- 02 HD SPORTSTER 883 - red pearl, paint w/extras, 800 mi., \$6,350. Karl, 477-0817.
- 02 HONDA ACCORD LX COUPE - a/t, a/c, p/s, p/b, p/w, anti theft, orig. owner, 17K mi., \$15,050. Yongbin, Ext. 2835.
- 99 CHEVY VENTURE LS MINI-VAN - a/c, all pwr. incl. sliding dr., alarm, v.gd. cond., 54K mi. Ken, Ext. 8463.
- 98 JEEP CHEROKEE - a/t, a/c, p/s, p/b, p/w, new shocks, tires, brakes, & stereo; well maint., 126K mi., \$6,500. John, 289-0557.
- 95 FORD TAURUS - a/t, a/c, p/s, p/b, p/w, blue, new tires, windshield chipped, well main., 154K mi., \$900. Joe, 395-3596.
- 95 SATURN SL2 - a/t, a/c, cass., new radiator & water pump, high mi. \$1,200 neg. Richard, 878-2040.
- 93 AUDI 90S - a/t, a/c, p/s, p/b, plum, sunroof, fm/cass., runs well, 110K mi., \$1,100/neg. Lenore, 589-2793.
- 89 CADILLAC BROUGHAM - a/t, a/c, p/s, p/b, p/w, 5L, needs valve, auto climate control, \$500/obo. Mark, 722-2575/eves.

89 ALJO ALY SKYLINE CAMPER - 16', sleeps 4, a/c, heat, new refrig./awning/tires, stove, extras, \$4,500. Ron, 369-1992.

Boats & Marine Supplies

- 21' PROLINE - '97 walk-around, cuddly cabin, windless anchor, Merc. i/o, low hrs., new Bimini top, \$16,500. Carrie, 889-5302.
- 17' MAKO ANGLER - '74 ctr. con., excel. cond., outriggers, fishfinder, '84 trailer, motor needs work, \$2,150. Karl, 477-0817.
- 15' CANOE - Grumman alum. w/oars, gd. cond., Sherry, Ext. 5658 or 727-6714.

Furnishings & Appliances

- AIR CONDITIONER - 5,000 Btu, Sears Kenmore, used 10 hrs.; 20" self-prop. lawn mower, used 2 yrs., \$50. Svsila, Ext. 2191.
- BEDROOM SET - head brd., 2 night stands, chest, dresser w/mirror, Formica, \$300/obo. Marion, Ext. 5087 or 281-5667, after 6 p.m.
- COMPUTER DESK - \$80; sm. comp. desk, \$15; table w/chairs, \$85. Victor, 281-1441.
- DINING ROOM TABLE - Thomasville 41x72 + 2 leaves w/pads, 6 chairs, excel. cond., \$400. Brian, Ext. 2799 or 757-1551.
- DRYER - Roper, elec., xlg. gd. cond., make offer. Greg, Ext. 7810.
- MICROWAVE - GE SpaceMaker II for countertop, white, model #JEM25WV, \$40. Tom, 909-1498.
- RANGE - Kit. Aid gas w/convection oven, 3 yrs. old, stainless/blk., ask \$300. Chris, Ext. 2024 or 395-6112.
- TV - 24" Zenith, color, gd. cond., \$50.

Tools, House & Garden

- LAWN MOWER - Honda, push type, gd. cond., \$50. Maurice, 928-6930.
- WINDOWS - Anderson casements 48"x36"h, C-23, \$100; 96"x36"h, 2 - C-23s, \$200, more, Beth, Ext. 6033.

Sports, Hobbies & Pets

- POKER CHIPS - 500 casino quality, 11.5 gram, in alum. case w/2 decks of cards & 5 dice, new. Paul, Ext. 5829 or 289-9152.
- SLAM MAN - electronic boxing torso, new w/videos/inst., will deliver locally, paid \$250, sell for \$125/obo. Charlie, 821-1525.

Audio, Video & Computers

- DELL - 1Ghz CPU, 256Mb ram, 20Gb hd, Win2K, Off. XP, extras, \$250; new scanner, \$40. Don. Ext. 7237 or 929-6571

Lost & Found

- FOUND - bracelet, Director's Office. Mary, Ext. 3927.

Miscellaneous

- EXERCISE BIKE - Tunturi, excel. cond., make offer. Brian, Ext. 2799.
- FAUCETS - Moen, like new, single lever, chrome, 3 avail., b/o. Bill, 452-1726.
- NORDIC FLEX - Ultra Lift CX, Trotter 525; Wedgewood Queenware potpourri design. For prices, call Stephanie, 325-9200.
- NORDIC TRACK - elec., timer, gd. cond., ask \$60. Norm, Ext. 2900.
- TICKETS - Fosse at Patchogue Theatre, Thurs., 8/19, 2 p.m. matinee, Orchestra Row D, 2/\$60. Claudia, Ext. 3467.
- TICKETS - Met Opera, 9/27, 7:30 p.m., 2nd row balcony center, \$60/ea. Carmen, 265-3982.
- TICKETS - Mets vs. Astros, 8/12, 12:10 p.m., Mezz Box, 2 tickets for \$78. Laurie, Ext. 5520.
- VIDEOS - Barney, Pwr. Rangers, Dink the Dinosaur & others, \$1/ea. John, Ext. 4028.

Free

- BOOKS - *The Largest Tred*, Grace Lee Whitney; *Low Calorie Cookbook*; *Russian Stones*, Tolstoy. Morris, 924-6274.
- DOG FOOD - unopened, 20lbs., Flint River adult w/glucosamine. Maria, Ext. 5483 or 744-0790.
- POOL - 15' above grd., you take apart & pick up, East Northport, Carol, 754-6779.

Yard & Garage Sales

- CENTER MORICHES - #8 Howell Pl., this Sat., 8/7; rain date: Sun., 8/8. 878-1178.

Wanted

- BOWS - old recurved & long. Bill, Ext. 2377 or 654-8685.
- LAPTOP COMPONENTS - hd & DVD-ROM. Vinal, Ext. 4396.
- PHOTO COPIER - for Boys Scout Troop, any donations. Darcy, Ext. 3362 or 286-8523.
- RECORDS - 50s-present, esp. 45 rpm. Kathi, Ext. 7661.
- RESEARCH VOLUNTEERS - men and women, ages 18 and over, are needed for PET study. Strictly confidential, fee provided. 344-5015.

Happenings

- CRAFT FAIR - and flea market at the Old Ship of Zion Church, 145 Frowein Rd., Ctr. Moriches, on 8/28, 9 a.m.- 4 p.m., \$30 per 12' x 12' space, 878-1115 or 475-1811.

For Rent

- CORAM - roommate needed, share 2-bdrm. apt., no smkg/pets, 20 min. to BNL, \$675/incl. util. David, 744-8105.
- MIDDLE ISLAND - Lake-front co-op apt. 2nd flr., 5 mi. to BNL, new w/d, w/h, d/w, carpet & more. Brett, Ext. 7431.
- MILLER PLACE - 1-bdrm. apt., use of fenced back yd., fully furn., 9 mi. to BNL, non smkg/pets. 744-8386.

Help Save a 'Metamorph,' A Young Tiger Salamander



Tiger salamanders, an endangered species, are emerging from various ponds on the BNL site and are moving into the woods. During the trek into the woods, the youngsters, called metamorphs, occasionally wander into buildings and get trapped. If you discover a lost salamander, call Tim Green of the Environmental & Waste Management Services Division or Jeremy Feinberg with the U.S. Fish & Wildlife Service, at Ext. 3091 or Ext. 6125. They will come and get the salamanders, which will be weighed and measured as part of ongoing research, then released in appropriate habitat.