

340th Brookhaven Lecture Fighting Brain Cancer With Boron Neutron Capture Therapy

A lethal brain cancer called glioblastoma multiforme strikes about 7,000 Americans annually. But, as a result of new clinical trials of the experimental treatment called boron neutron capture therapy (BNCT) being conducted in BNL's Medical Department, patients with this type of brain cancer can have some hope for a future cure.

To explain the "Clinical Aspects of Boron Neutron Capture Therapy," radiation oncologist Aidnag Diaz of Medical, who, as associate Chief of Staff of Brookhaven Lab's Clinical Research Center, oversees the latest round of BNCT clinical trials, will give the 340th Brookhaven Lecture on Wednesday, November 18, at 4 p.m. in Berkner Hall. Diaz will be introduced by Jeffrey Coderre, BNCT principal investigator.

As Diaz will explain, BNL's approach to BNCT involves BPA, a boron-containing compound, which, when injected into patients with glioblastoma multiforme, who have been selected for the clinical trials, accumulates preferentially in the tumor tissue. Within the tumor, BPA is activated by a beam of neutrons from the Brookhaven Medical Research Reactor, releasing short-range radiation which destroys the tumor cells.



Aidnag Diaz

The latest BNCT trials, which started October 15, are open to patients whose tumors are growing again, despite treatment with radiation or chemotherapy, or patients who have not been treated previously with surgery, radiation or chemotherapy.

According to Diaz, 41 patients have been treated so far in these trials, which involve a higher dose of radia-

tion than was given before. These patients' median survival is 13.4 months, which is comparable to the median survival of patients who have undergone conventional treatment. While conventional treatment requires many hospital visits, BNCT is completed during a one-hour visit.

A board-certified radiation oncologist, Diaz received a B.S. and an

M.S. in nuclear engineering from Columbia University, in 1981 and 1983, respectively. From 1983-84, he designed nuclear reactor cores at the Westinghouse Electric Corporation.

In 1988, he earned an M.P.H. and an M.D. from Columbia. He was a resident in internal medicine at St. Luke's-Roosevelt Hospital Center in Manhattan, 1988-1991, and a resident in radiation oncology at the University of California at San Francisco, 1991-94.

From 1995 to 1997, Diaz was an assistant professor of radiation oncology at the State University of New York at Stony Brook, and, during that time, he became a BNL guest medical scientist.

In 1997, he joined the Medical Department, where he became an associate scientist, and, in 1998, he took on the additional duties of Associate Chief of Staff of Brookhaven's Clinical Research Center. Also in 1997, he joined the staff of the Albert Einstein School of Medicine in the Bronx.

Coffee will be served before the lecture, and refreshments will be offered afterwards. To join the lecturer for dinner at an off-site restaurant, call Adrienne DeBoard, Ext. 4907.

— Diane Greenberg

Final Facilities Review Report Issued Progress Made on Significant Findings

After a year and a half of hard work on the part of many, BNL has issued the third and final report of a site-wide facilities review which was begun in April 1997.

The review, the most comprehensive in the history of the Lab, has identified past or current activities having the potential to degrade groundwater. It was conducted by BNL and DOE, with technical assistance from the Suffolk County Department of Health Services.

A BNL and DOE committee identified significant issues, and a core team did the follow-up work of implementing corrective actions for every item.

Led by Barbara Royce, ES&H Services Division, that team consisted of Greg Flett, Plant Engineering Divi-

sion; Jason Remien, Environmental Restoration Division; and John Collins, a BNL contractor. Royce and Collins were also responsible for reviewing the voluminous data created by the review and preparing the reports.

"Ten years ago, I accompanied county personnel through building after building, inspecting the entire site for conformance with the county's sanitary codes," said Barbara Royce. "With its overarching goal of protecting groundwater, the facilities review went far beyond that earlier process. The tremendous effort on the part of so many will go far in addressing groundwater contamination on site."

The first two facility review reports were made public last year, one in

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Gathered near Building 480, where a 500-gallon underground tank was removed as part of the facilities-review project, are: (from left) James Pim, Suffolk County; Barbara Royce, Greg Flett and Jason Remien, BNL; and John Collins, a BNL contractor. Water from the tank was released to the Lab's sanitary system after analysis showed no evidence of radioactivity or contamination with petroleum.

Photos on this page by Roger Stoutenburgh.

BNL Employees' Perspective '98 Employee Survey Steering Committee Forms Focus Groups, Works With ALDS



Members of the Employee Survey Steering Committee (ESSC) include: (from left) Peter Bond, Director's Office; Robert D'Angio, Human Resources (HR) Division; George Greene, Department of Advanced Technology (DAT); Robert Kinkead, Community Involvement & Public Affairs Division; Otto White, ES&H Services Division; Terrence Buck, Division of Contracts & Procurement (DCP); Lorraine Merdon, Diversity Office; and Satoshi Ozaki, Relativistic Heavy Ion Collider Project. Absent from the picture are ESSC members: Robert Bari, DAT; Susan Foster, HR; Mary-Faith Healey, DCP; Derek Lowenstein, Alternating Gradient Synchrotron Department; and Marilyn Pandorf, HR.

Since the results of the employee survey were announced (see Brookhaven Bulletin of August 21, 1998), the 13 members of the Employee Survey Steering Committee (ESSC) have been using those results to identify ways to address the issues raised.

By comparing BNL's statistics with U.S. national and research & development firm norms, the ESSC has identified four categories of Lab-wide significance: communication, diversity, employee involvement, and training & development. To address these areas and related issues, the committee decided to form four employee focus groups, so a call for focus-group volunteers was issued through a memo to all employees and the Bulletin (see Bulletin, October 23, 1998).

According to ESSC Chair Lorraine Merdon of the Diversity Office, over 100 employees responded to the call by the Monday, October 26, deadline, and the respondents represent a cross section of employees by department, salary classification, length of service, etc.

In addition to its approximately 25 members, each focus group will have a leader, who will be trained in facilitating groups. Six of the 13 ESSC members will join the groups as ex-officio participants.

The volunteers will be notified about their committee assignments during the week of November 9. The first meeting of the focus groups is scheduled for Wednesday, November 18, when the members will be addressed by Lab Director John Marburger.

To address their topic and related areas of concern, focus-group members will

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BNLers Involved With Their Community Wanted: BNL Volunteers to With Habitat for Humanity of

What do former U.S. President Jimmy Carter and the organization Friends of Brookhaven (FOB) have in common?

Both have volunteered for Habitat for Humanity, a nonprofit organization dedicated to building housing in partnership with low-income families.

Since it was formed in 1976, Habitat for Humanity has built or renovated some 70,000 houses worldwide, including 30 in Suffolk County.

Habitat does not give its houses away. Instead, homeowners-to-be are selected on basis of need, the ability to carry the home's mortgage (which is small compared to the market value of the completed structure) and their willingness to contribute the necessary sweat equity, working side by side with Habitat volunteers to help build or rebuild their home-to-be.

While Carter and his wife Rosalynn's involvement dates from 1984, when they gave the first week of their time and their building skills to a Habitat apartment-building project in New York City, FOB members and other BNLers and their families and

friends first donated their time to Habitat of Suffolk County during two Saturdays this July — when 28 BNLers helped frame, roof, side, paint, etc., a one-family, three-bedroom ranch on McDonald Avenue in North Bellport.

"We all came away tired, but with a feeling of accomplishment for having helped do



Facilities Review (cont'd.)

September and one in December (see Brookhaven Bulletins, January 2 and September 12, 1997).

The September report discussed findings for buildings and structures at the Lab that were designated "priority one" facilities. These were facilities that used or generated significant quantities of radioactive materials during the 1950s and 1960s, before current environmental regulations and standards were developed. The December report discussed findings for the balance of activities on site, considered "priority two."

Together, the priority-one and priority-two reports documented a total of 35 "significant" findings, as well as 27 "lesser" findings. "Significant" is defined as having the potential to contaminate groundwater to levels above the New York State drinking water standards.

The third and final report, issued October 7, details 14 additional "lesser" findings, such as indoor sumps and water-filled underground pipes formerly used to store radioactive sources. Although such items have a low potential to contaminate groundwater above drinking water standards, BNL management felt that action was needed in the near-term and has already made major progress on more

than half of them.

Of the 35 significant findings, 31 have already been addressed, eliminating or significantly reducing environmental vulnerabilities. Appreciable work has been completed on the remaining four significant findings to eliminate any potential for environmental impact.

The 35 significant findings cover items in various locations on the BNL site. The following are examples of completed items and those that need more action:

- **Bldg. 525 & 526:** Involves two underground storage tanks containing radioactive water and sludges, generated in the 1950s and 1960s as part of research on nuclear reactors. Tanks removed; they had not leaked.
- **Bldg. 463:** Involves dry well containing pesticides; used to collect runoff water from greenhouses. Top one inch of surrounding soil was contaminated above county guidelines; top six inches of soil removed and dry well filled in.
- **Sump:** Contained radioactive water and sludges associated with Brookhaven Graphite Research Reactor (BGRR), which last operated in 1969. Sump cleaned out and sealed to prevent rainwater intrusion. Groundwater contaminated with strontium-90 is being addressed under the Superfund program. Final remediation of sump will be done as part of an ongoing project to address environmental concerns at the BGRR.
- **Bldg. 422:** Involves septic tank con-

nected to cabinet shop; held solvents and other cleaners. Tank removed; soil samples taken to check for contamination.

- **Bldg. 811:** Ventilation ducts are being surveyed for rainwater intrusion and radioactive contamination. Ducts took air from Bldgs. 801, 811, 815, 835.

- **Bldg. 701:** Emptied of water in 1972, BGRR spent-fuel pool will be addressed as part of the BGRR remediation program. Associated sump still contains about 12 cubic feet of highly radioactive sludge; no evidence that sump has leaked.

- **Bldgs. 701/708:** BGRR air ducts were found to contain about 60,000 gallons of radioactive water. The water was pumped out, and the ducts have been sealed against rainwater intrusion. They will be remediated with BGRR complex. The Lab has begun shipping this water off site for disposal.

- **Bldg. 491:** Small sump in basement is being brought into compliance with Suffolk County Article 12.

The Facilities Review Project

DOE committed many resources to the review, including sending technical staff to BNL from across the DOE complex. And hundreds of BNLers helped in the process of identifying potential problems.

Program managers throughout the BNL organization were asked to review and document the operating history of each building or structure, both existing or previously demolished. The managers filled out standardized

forms to catalog building status, occupants and activities, emphasizing information on activities that involved handling a potentially hazardous or radioactive material, even if there was no indication that any releases had occurred.

This process resulted in over 900 forms identifying items that had the potential to be an environmental vulnerability, including the 35 significant and 41 lesser findings.

The balance of the items, over 800, are considered to have minimal environmental impact. These include such issues as indoor storage of hazardous materials and equipment, historical cleanup activities for which documentation was not required or is no longer available, past releases of cleaning solvents, and past small releases of water containing low-levels of radioactivity.

As part of the facilities review process, the Lab initiated a building-by-building inspection in the spring of 1997. Suffolk County staff accompanied BNL personnel on the building inspections and, from this and document reviews, began compiling a list of items that have been or need to be inspected at the BNL site by the county's Department of Health Services. Today, the county list includes about 1,200 items, about 300 more than the BNL list.

To Your Health

The following are offerings of the Health Promotion Program of the Occupational Medicine Clinic. For more information and to register, contact Mary Wood, Ext. 5923.

Cardio Kickbox Classes

Cardio kickboxing is a cardiovascular-fitness activity that involves non-contact martial-arts kicking and boxers' punching drills, stretching and strengthening exercises, and self-defense moves. Cardio kickboxing improves stamina, while building strength and increasing flexibility.

An eight-session class of cardio kickboxing will be offered from noon to 1 p.m. on the following dates: Monday, November 16, 23, and 30; Thursday, December 3; Monday, December 7; Thursday, December 10; Monday, December 14; and Thursday, December 17. Classes will take place in the North Ballroom of the Brookhaven Center.

Healthline: Healthy Cooking

On Thursday, November 19, from noon to 1 p.m. in the large conference room of Bldg. 490, spend your lunchtime learning hands-on how to prepare healthy holiday appetizers from nutritionist Marlisa Brown. Participants will work with recipes for such low-fat selections as Italian bruccetta, corn muffins with smoked turkey and cranberry sauce, tortellini kabobs, and more — and then eat what they have prepared. A salad will be supplied, but participants should bring their own beverages.

Great American Smokeout 11/19

Each year, the third Thursday of November is the first day of a life without smoking for thousands of Americans who kick the habit during the American Cancer Society's Great American Smokeout. In fact, last year, nearly 12 million American smokers stopped for at least the day. This year's Great American Smokeout takes place on Thursday, November 19, and all BNLeers who smoke are urged to go smoke-free that day as the first day of a new habit of not smoking.

BERA Bus to NYC 12/5

"Do Your Own Thing" on Saturday, December 5, when BERA will sponsor a round-trip bus to New York City. The bus will leave the Brookhaven Center promptly at 10 a.m. and leave the city at 7 p.m., with a drop-off and pickup location at Rockefeller Center, at Fifth Avenue and 50th Street.

Paid reservations, at \$18 per person, are being taken at the BERA Sales Office, Tuesday-Friday, 9 a.m.-1:30 p.m. For more information, call Andrea Dehler, Ext. 3347.

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 complete list of all job openings; use a TDD system to access job information by calling (516) 344-6018; or access current job openings on the World Wide Web at <http://www.bnl.gov/JOBS/jobs.html>.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees.

DD8136. SECRETARIAL POSITION - (term appointment) Requires an AAS degree in secretarial science or equivalent experience, and in-depth knowledge of Lab policies and procedures. Excellent organizational and communications skills, both oral and written, are also required, as well as proficiency with Microsoft Word, Microsoft PowerPoint, IPAP, and Outlook. Experience with and/or knowledge of ES&H and quality activities at BNL or elsewhere desired. Will work under minimum supervision performing a variety of tasks including preparing and tracking correspondence, managing appointments, screening and responding to e-mail, making travel arrangements, maintaining files, and effectively and efficiently handling a high volume of telephone traffic. Will support the ES&H/Quality Assistant Director's office and provide backup to the current administrative personnel as required. Director's Office.

Pre-Veterans Day Ceremony

New Home for Camp Upton Collection

On Tuesday, November 10, which is the day before Veterans Day, all are invited to attend a ceremony dedicating the front lobby of Bldg. 184 on Brookhaven Avenue as the soon-to-be home of the Camp Upton Historical Collection.

The ceremony, to which local veterans of foreign wars have been invited, will be held at 11:30 a.m. on the sidewalk in front of 26 Brookhaven Avenue.

The Lab sits on what was the U.S. Army's Camp Upton, a World War I training center and a World War II induction center. Over the years since BNL's founding in 1947, the Museum Programs of the Community Involvement & Public Affairs Division has amassed a significant collection of Camp Upton memorabilia — some of which has been found on site and others of which have been donated by Camp Upton veterans and their families.

Formerly housed in Bldg. 701, the entire Camp Upton collection has been in storage since June 1997. While the exhibits for the Lab's science museum were moved to their new home in Bldg. 935 last November, the new museum could not accommodate the 1,000 square feet of Army artifacts formerly on display, no less an additional 500 square feet of Camp Upton items that have never been exhibited due to lack of space.

As the lobby of Bldg. 184 is approximately 500 square feet, about one-third of the collection will be available for viewing by next spring, when the conversion of the space is expected to be completed.

The front half of Bldg. 184 is now the annex to the Research Library across the street in Bldg. 477. By reorganizing the books within the middle of the annex, space will be freed up for the Camp Upton collection without disrupting researchers' access to the annex collection. The only difference will be that the annex entrance will be a door on the west side of Bldg. 184, since the front door will provide access to the Camp Upton collection.

Holiday Bash Tickets

Tickets for BERA's first annual Winter Holiday Party, on Friday, December 11, at the Rock Hill Country Club in Manorville, are now on sale at \$20 per person. This event will begin at 6 p.m. and feature a sit-down dinner and dance music by BNL's resident DJ, E.T.

To purchase tickets, contact: Charles Gardner, Ext. 5214, Bldg. 911A or chuckg@bnl.gov; or Luis Nieves, Ext. 4897, Bldg. 179, before Monday, November 30. No tickets will be available at the door.

Arrivals & Departures

Arrivals	
Michael J. Bardash	RHIC
Thomas M. Morello	Occ. Med. Clinic
R. Jefferson Porter	Physics
Jurgen Schaffner-Bielich	Physics
Departures	
Kenneth G. Baumeister ...	Safe. & Sec.
William J. Bottinger	Info. Services
Calvin H. Brewster	Adv. Tech.
Liti Haramaty	App. Sci.
Ernest J. Jochen	Central Shops
Dolores J. Knighton	Info. Services
Jeffrey L. Knighton	Info. Services
Anthony X. Millet	ES&H Services
Robin A. Scarola	Physics
Nancy R. Siemon	Adv. Tech.
Josef Sedlmeir	Physics

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

DD8036. ADMINISTRATIVE POSITION - (term appointment) Requires a BS in accounting/finance or a relevant discipline, several years' accounting/finance experience, and knowledge of spreadsheet and database applications (Excel, Access). Practical experience in network administration is a plus, as is familiarity with activity-based cost accounting and/or construction accounting. Will be responsible for variance analysis in relation to sales, and labor and overtime activities; assisting in rate developments; and all aspects of the budgeting cycle. Plant Engineering Division.

DD7725. DESIGN POSITION - (term appointment) Requires an AAS degree or equivalent capabilities and significant experience using AutoCAD-LT software and ACCEL EDA. Knowledge of Spectra Router and PCAD software a plus. Must be able to design analog and digital printed-circuit boards, from schematics to final assembly drawings; design various electromechanical assemblies; and work directly with engineers for each project. Alternating Gradient Synchrotron Department.

DD8026. ELECTRICIAN A POSITIONS - (temporary; reposting) Under minimum supervision and in accordance with the National Electrical Code, or as otherwise directed, lays out, constructs, installs, maintains, repairs and operates electrical systems, equipment, controls and related devices. May be required to perform similar duties on other-than-maintenance-division equipment and facilities. Plant Engineering Division.

NS7021. BUDGET POSITION - Requires bachelor's degree in business or accounting, and knowledge of cost accounting principles and rates development. Strong analytical skills and experience with Excel, Word and PowerPoint are required; knowledge of Lab policies relevant to financial management are desirable. Will be responsible for performance of complex budget assignments, preparation of analytical reports for senior staff, and review of organizational budget for compliance with Lab policies. Budget Office.

DOE Lawrence Award Winners at BNL

The following is the complete list of researchers who, while employed at BNL, have won DOE's E.O. Lawrence Memorial Award.

In announcing the most recent of these winners — BNL's Joanna Fowler of the Chemistry Department (see last week's Bulletin) — the name of John Dunn, Biology Department, who had received this award in 1984, was inadvertently omitted from the list of past recipients.

name	date	dept.
Joanna Fowler	1997*	Chemistry
Joseph Wall	1988	Biology
Betsy Sutherland	1985	Biology
John Dunn	1984	Biology
Martin Blume	1981	Physics
Nicholas Samios	1980	Physics
Benno Schoenborn	1980	Biology
F. William Studier	1977	Biology
Joseph Hendrie	1970	Adv. Tech.**
Jacob Bigeleisen	1964	Chemistry
Herbert Kouts	1963	Adv. Tech.**

* Though awarded in 1998, this is a 1997 award.
** This was then the Department of Nuclear Energy.

Diwali Tomorrow

To celebrate the Indian Festival of Light, the BERA Indo-American Association is offering a Diwali festival tomorrow, Saturday, November 7, in Berkner Hall. The cost of \$11 per adult and \$7 per child 5-12 years old includes refreshments at 3 p.m.; entertainment, 3:30-6:30 p.m.; and dinner, 6:30-8 p.m. Obtain tickets from: Piyush Joshi, Ext. 3847; Kumi Pandya, Ext. 7734; and Geeta Tope, Ext. 5702.

Computer Training

The following classes will be offered in November by the Computing & Communications Division. Note that several courses are changed from the previously announced schedule:

11/9	Microsoft Outlook, beginner
11/10 & 12	Microsoft ACCESS, beginner
11/16	HTML, beginner
11/17 & 18	Microsoft Project, beginner
11/19 & 20	Microsoft ACCESS, intermediate
11/23	Microsoft EXCEL, intermediate
11/24	Microsoft Word, beginner

For more information, contact Mansfield, Ext. 7286, or pam@bnl.gov.

Thanksgiving

FOOD DRIVE

November 13-19