BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

BNL's Tin-117m Eases Bone-Cancer Pain Without Sedation

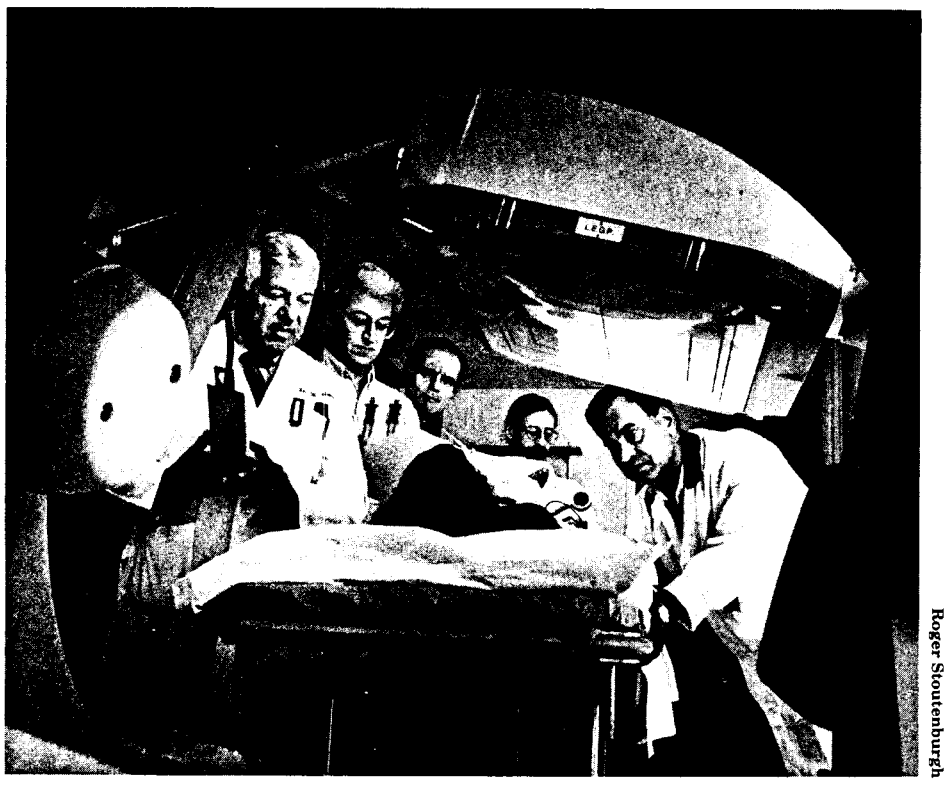
Every year, excruciating pain afflicts more than half of the 400,000 cancer patients in the U.S. whose advanced-stage breast, prostate or lung cancer has metastasized, or spread, to the bone. Unfortunately, the narcotic drugs usually prescribed to relieve this pain have sedative side effects that diminish the quality of the remaining part of these patients' lives.

New hope is on the horizon: It's tin-117m DPTA, a radioisotope-labeled compound isolated and developed by Medical Department researchers Suresh Srivastava and George Meinken, and Powell Richards, who recently retired.

In phase II of the clinical therapy trials of tin-117m DPTA now underway, about 80 percent of the 40 patients treated experienced substantial relief from their pain. And this very promising, bone-seeking pain-reliever has no sedative effect.

The phase II trials, approved by the U.S. Food & Drug Administration (FDA) and done in collaboration with the University Medical Center at Stony Brook and the Veterans Affairs Medical Center (VAMC) in Tucson, Arizona, are almost complete. They will be followed by FDA-approved phase III trials this November.

A close collaborator already preparing for the phase III trials is Diatech, Inc., a New Hampshire pharmaceutical company that, in June 1994, licensed BNL's technology to develop and market the patented tin-117m DTPA as a radiotherapeutic agent. A partnership between Diatech, Inc., and a major pharmaceutical company interested in oncology products is expected by the end of this year.



Roger Stoutenburgh

A major advantage of tin-117m DPTA over the current FDA-approved strontium-89 chloride (Metastron ™) is that the spread of cancer to bone can be imaged using a gamma camera. Here, (from left), Harold Atkins, Leonard Mausner, George Meinken, Slawko Kurczak and Suresh Srivastava, all of the Medical Department, are ready to image a patient.

Tin Works and Workers

The radioisotope tin-117m is produced at either Brookhaven's High Flux Beam Reactor or the High Flux Isotope Reactor at Oak Ridge National Laboratory (ORNL). It is then attached to a pharmaceutical called diethylenetriaminepentaacetic acid (DTPA). When given to patients intravenously, tin-117m DTPA localizes preferentially in bone rather than in normal soft tissue or bone marrow.

In addition, tin-117m emits electrons that have a very short range in tissue, depositing most of their energy within a 0.3-millimeter radius. Because of this, the tumors on the bone receive up to 50 times more dose than can reach the radiation-sensitive bone marrow.

As a result, tin-117m does not suppress the bone marrow's production of white blood cells and platelets. Thus, the body retains its ability to fight infection, and the blood can still clot. This eliminates one of the major side effects of other radiopharmaceuticals also devised to deal with bone pain.

"We developed tin-117m for about four years in the laboratory [see sidebar], then, finally, in 1992, sought and received FDA approval for the first phase of clinical therapy trials," said Srivastava, principal investigator for the project. "It was a real team effort, with everyone's part a vital necessity before the next step could be considered, so we in the Radionuclide and Radiopharmaceutical Research Group are all excited and optimistic about the tin-117m results."

The initial clinical studies of this

(continued on page 2)

Basic Research Key to New Pain Therapy

A radioisotope is an unstable form of an element that emits radiation as it decays to a stable form with a different mass, but the same chemistry as the element. So, how did BNL Medical Department researchers Suresh Srivastava, George Meinken and Powell Richards get the idea that an isotope of tin could ease bone-cancer pain?

They had clues: Certain radioisotopes were known to be as effective as the narcotic drugs usually prescribed for this pain, yet without the narcotics' sedative effects. However, such radioisotopes used in the past, as, for example, phosphorus-32, have potentially toxic properties. They emit higher-energy beta radiation that can reach past the tumor on the bone surface and attack the patient's radiation-sensitive bone marrow.

As part of another project funded by the U.S. Department of Energy's Office of Health and Environmental Research, Srivastava, Meinken and Richards were studying the in-vivo disposition of tin, as an essential ingredient of the technetium-99m blood-cell labeling kits developed earlier by this group.

The researchers were using tin-117m as a tracer, and they found that radiations from this isotope were short-ranged enough to deposit high local radiation doses to diseased bone with much less effect on the radiation-sensitive bone marrow. They synsthesized a number of tin-117m labeled compounds and tested them in laboratory mice. But, though much of the tin went to the bone, a significant amount went to the liver, spleen and bone marrow, and clearance from blood and excretion from the body were slow.

Yet it *should* have worked. The emissions and other characteristics had been so promising.

"We thought and thought," recalled Srivastava.

One night, he had an idea. Driving to the Lab the next morning, he could hardly wait to get in. "George, let's oxidize it!" he suggested to Meinken. In all initial studies, stannous tin in its most common, 2+, oxidation state had been used — the new idea was to try with the thermodynamically more stable, stannic form of tin.

Once Meinken's expert work was done, the tin-117m(4+)DPTA he had made was tested on the mice. Biodistribution results showed that "It went straight to the bone!" reported Srivastava.

And, he added, "what little did not deposit on bone was excreted rapidly into the urine. The radioactivity stayed on the bone until the isotope decayed."

The promise of success was revealed, but many years of work lay ahead. The next steps were to work on quantitatively attaching the tin-117m to the DPTA compound in a stable fashion and develop an improved production method of the tin-117m isotope. Then followed the long road of testing and developing these basic research findings into an important medical application.

— Liz Seubert

New NSLS Chairman: Michael Hart

Well known in the synchrotron community for his contributions to x-ray physics, Michael Hart assumed the department chairmanship of the National Synchrotron Light Source (NSLS), as its sixth head, effective September 1.

"Professor Hart's stature in the world synchrotron community has been demonstrated by his sharing the first Bertram Eugene Warren Award for Diffraction Physics presented by the American Crystallographic Association in 1970, his election as a Fellow of the Royal Society of the United Kingdom in 1982, and his being appointed in 1994 by Queen Elizabeth as Commander of the British Empire for his service to physics," stated Laboratory Director Nicholas Samios.

He added, "I thank Deputy Chairman Samuel Krinsky for managing the day-to-day operations of the Department during the interim and look forward to Michael Hart's leading the NSLS into the 21st century."

"Over a dozen candidates applied for the position, and we were very pleased that Mike accepted our offer, as his research and leadership are well recognized and respected," commented Denis McWhan, BNL's Associate Director for Basic Energy Sciences and Hart's immediate predecessor.

McWhan added: "His x-ray physics contributions began with the development of monolithic multiple Bragg-reflection devices, such as the x-ray interferometer and the Bonse-Hart small-angle scattering camera, and his pioneering work on x-ray polarization phenomena. Most recently, Mike and Lonny Berman [NSLS] have co-authored seminal papers on high heat-load optics for insertion-device beam lines at synchrotron sources."

The premier source of high-flux synchrotron radiation for experiments in the world, the NSLS hosts nearly 2,800 users a year. NSLS users are a diversified group in terms of fields of

Roger Stoutenburgh

Michael Hart

interest, with research ranging from the life sciences to the physical sciences. "It is known world-wide that the NSLS is a top-class facility, and I hope to use my international perspective on synchrotron radiation to consolidate our position in the field," explains Hart.

During a decade of NSLS operations, Hart mentions, "The facility has continued to evolve, and the quality and reliability of the beam has increased dramatically. The NSLS, however, will face stiff competition from the two new light sources being built in the U.S."

He continued, "So, it is not surprising that future funding patterns are up for discussion, especially as agencies are redefining their support of basic and applied science and technology. I am very heartened, however, by discussions at the NSLS encouraging individual beam-line participating research teams with common research interests to unite into multi-beam line

(continued on page 2)

Tin-117m (cont'd.)

new bone pain-killer, under the FDA-approved investigational new-drug (IND) application, were led by Leonard Mausner as the principal investigator, with Harold Atkins as the responsible physician.

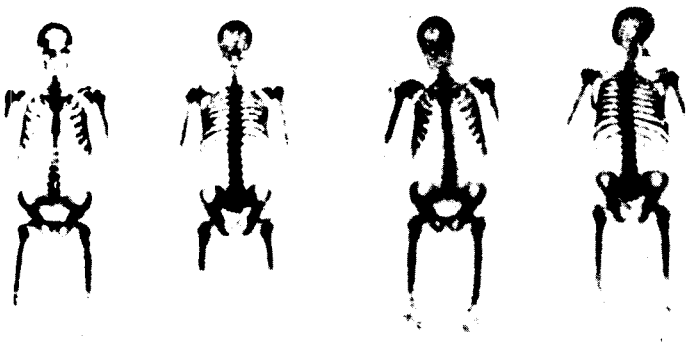
Other key personnel, including clinical collaborators, who are or have been involved in this project include: physicians Cora Cabahug and Zvi Oster, both at SUNY Stony Brook; Gerbail Krishnamurthy, VAMC; Italo Zanzi, North Shore University Hospital; Thomas D'Alessanddro, Northport VA Hospital; Edward Silberstein, University of Cincinnati Medical Center; Johannes Klopper, now at Cape Town, South Africa; BNL researchers Prantika Som, and Donald Sacker and Rita Straub, both retired; Saed Mirzadeh, now at ORNL; BNL's Slawko Kurczak, Beatrice Pyatt and Thomas Martin; Russ Knapp, ORNL; and the late Ralph Fairchild, BNL.

Also crucial to the continuing progress in the project, said Srivastava, was the help given by the BNL Office of Technology Transfer, with Margaret Bogosian as Manager, and by the BNL Human Subjects Research Committee, which is chaired by Laboratory Counsel Michael Goldman.

First Trials

The first clinical trials consisted of a biodistribution study focusing on dosimetry and patient safety. After studying ten patients, this phase led to a 50-patient escalating-dose trial, to determine the minimum dose needed for bone-pain relief and the maximum tolerated by the marrow.

This test became part of phase II, which, in addition to measuring dose escalation, is concentrated on the compound's safety, efficacy and lack of toxicity.



Typical images of a patient with advanced prostate cancer that has spread extensively to the bone. The images on the left were made with Tc-99m MDP, routinely used to show the state of the bone metastases. The correlating images on the right were obtained eight days after administering 10.2 millicuries of tin-117m DPTA. The matching distribution of radioactivity shows the new agent's excellent bone-localizing properties.

In fact, recalled Srivastava, the first patient treated with a therapeutic dose, who had been unable to get out of bed because of his pain, felt so much better that he spent the next day outdoors.

Evaluations of the way the next 39 patients responded to tin-117m DPTA showed that, of the approximately 80 percent who experienced relief, 60 percent had significantly less pain and were able to lead comparatively normal lives. Even more spectacular results were experienced by 20 percent of the patients — they became completely pain-free for follow-up periods lasting from four weeks to 12 months.

No Toxicity

In addition, during the tests, no bone-marrow toxicity was observed in doses that are so far up to about twice the therapeutically effective level — "a very exciting result," Srivastava said. "We are now planning studies using higher doses, since increasing doses may also increase the rate of patients' response to the treatment. In addition, we want to know whether increased doses would prolong the patients' pain-free intervals and/or retard the progression of disease, thus prolonging survival."

In the phase III tests, patients will be given either tin-117m DTPA or one of the other products made to relieve bone-cancer pain, such as the FDA-approved strontium-89 chloride, which is marketed as Metastron™. These will be random, double-blind trials, in which neither the patient nor the doctor will know which product is being administered. Patients, who will be treated in ten to 15 centers worldwide, will be observed to see whether they show an increased response rate to the tin or to the other product, and whether a similar comparison indicates less bone-marrow toxicity caused by the tin compound.

Additional vital information to be determined in phase III will be the time it takes for the onset of relief and how long the pain-free intervals last, in order to establish an optimum safe and effective dose.

Other Advantages

Another advantage of tin-117m DTPA over most other radiopharmaceuticals already approved or being developed is that patients can receive this medication as outpatients. Since patients will most likely receive only 10-15 millicuries of radioactivity, the FDA does not require them to be hospitalized, thus sparing them inconvenience and expense.

Also, in addition to giving off low-energy electrons that penetrate the bone metastases without damaging surrounding normal tissue, tin-117m DTPA emits gamma rays. These, having an ideal energy of 159 KeV, can be used with a gamma camera to image the distribution of the compound in the patient, showing exactly where the tumor is and how far the disease may have spread.

Finally, tin-117m is not radioactive for long, having the intermediate half-life of 13.6 days, which is convenient for shipping and distribution purposes. Patients' contact with other people is less of a problem than when longer-lived isotopes are used, a very special benefit for friends and family.

With all these advantages, tin-117m DTPA may be the best agent yet for relieving bone pain.

"But we have discovered yet another potential advantage," said Srivastava. "The deliverable radiation dose to the tumor is three to ten times higher than that of similar products for pain relief. Therefore, tin-117m DTPA may also prove useful for treating primary bone tumors, in addition to relieving the pain from metatastic bone involvement." — Liz Seubert

NSLS Chairman (cont'd.)

confederations involving increased NSLS participation, so beam-line users may pool their intellectual, technical and material resources to maximize their scientific output for the dollar."

In addition, Hart comments, given that most synchrotron-based research is still not brightness-limited, it is up to the users to chose the best source for their research in terms of beam specifications, availability and reliability, and user support — and, "for at least the next five years, as the other sources get established, the NSLS will be that source because of the depth and breadth of our expertise and experience in delivering productive beam time."

He concludes, "Whether they are studying buckyballs, surfaces or doing angiography, our users have a common interest: to use the unique methods of analysis that synchrotron-radiation sources provide to their fullest. And, they generically have the same problems in finding the best ways of doing this. So, to ensure that the NSLS remains competitive in the world community, it will be my job to make sure that the NSLS capitalizes on our strengths in terms of the flux and power of our two sources, and in terms of our experience in meeting our users' needs now and our R&D effort aimed at meeting their needs in the future."

As Hart points out, while the NSLS's expertise was called upon during the development of the two new light sources that it now competes with, the NSLS is at present attempting to leapfrog these sources — by developing the next-generation source based on a free electron laser.

He comments, "Accelerator R&D is an essential component of our work, as it has allowed the continuous upgrading of the two existing rings, while permitting explorations of the possibilities for future sources."

Hart is no stranger to the NSLS experimental floor, having performed research here over the last five years. Working with the NSLS's Jerry Hastings and Peter Siddons, and a colleague from the Photon Factory in Japan, Hart made the first measurements of K-shell resonant optical activity in cobalt and iron magnets, and in chiral cobalt compounds.

However, his involvement in using synchrotron radiation began in the United Kingdom in 1974 at the 5-billion-electron-volt synchrotron NINA, doing research on x-ray topography and small angle scattering. Since then, he has had beam time at sources around the world, including Daresbury in England, HASYLAB in Germany, ESRF in France, and SSRL at Stanford.

Michael Hart's physics career actually began in 1963, after he took his Ph.D. in physics at Bristol University in England. He then spent two years in the United States, as a post doc in materials science and engineering at Cornell University, before returning to England.

Back in the Physics Department of Bristol University for the next 11 years, Hart first served as a research associate, 1965-67, and a lecturer, 1967-72. During a sabbatical, 1969-70, he had his first sampling of U.S.-government-sponsored research, at the Electronics Research Center of the National Aeronautics & Space Administration, during the height of the space race.

While serving as a reader in physics at Bristol, 1972-76, Hart took another leave of absence, to serve on the central policy review staff for the British government's cabinet, advising them on various matters, including the power industry, which was a hot topic in the 70s.

In 1976, he accepted the position as Wheatstone Professor and Head of the Physics Department at King's College of London University. As such, Hart oversaw the merger of his department with that of Queen Elizabeth College, heading the joint department beginning in 1980.

After accepting a personal physics chair from Manchester University in 1984, he served part-time as the Synchrotron Radiation Source Science Programme Coordinator at the Daresbury Laboratory, 1984-87. In August 1993, Hart took early retirement from the University of Manchester and, until coming to the NSLS as Chairman, has been a "roving gentleman scientist," that is a research collaborator and self-employed consultant to several international companies.

"I intend to be an interactive chairman and do a lot of managing by walking around to talk to users and staff," explains Hart. Because he anticipates that the chairmanship will be more than a full-time job, "I don't intend to set up my own research program at the NSLS, but I will dabble in other people's projects, to keep my hand in research and to understand our users' needs better." — Marsha Belford

Inside Info

Two staff members in the Department of Advanced Technology (DAT) — **David Dougherty** and **Ruth Kempf** — recently received letters of commendation from **President Bill Clinton.**

Dougherty is a senior chemistry associate in DAT currently on assignment at U.S. Department of Energy headquarters in Washington, D.C. To him, Clinton wrote the following on May 15:

> I would like to express my personal appreciation and that of the nation for your expert contribution to the team that managed successful transfer of dangerous nuclear materials from Kazakhstan to safe storage in the United States. This operation, code-named Project Sapphire, was an important step in our efforts to meet the proliferation challenges of the post Cold War era. With your help, the Sapphire team created the political, legal and operational mechanisms necessary to bring this mission to a successful conclusion.
>
> As a direct result of your untiring efforts over a period of several months, this sensitive, vulnerable nuclear material — over half a ton of weapons grade, highly enriched uranium — will no longer present a proliferation risk to the United States or the international community.
>
> Thank you for your excellent work.

Kempf, Group Leader in DAT's International Safeguards & Technical Analysis Division, was acknowledged by Clinton in a June 6 letter, for her contributions to the panel of the President's Council of Advisors on Science and Technology (PCAST), which critically reviewed U.S.-former Soviet Union (FSU) cooperation to control fissile materials:

> Thank you for your work in helping to prepare the PCAST panel report on fissile materials. I agree that ensuring the security of nuclear materials is vitally important to our national security. Your report will be very helpful in guiding our continuing effort to address this critical national security challenge.
>
> On behalf of all Americans, congratulations on a job well done.

On June 26, Kempf's efforts were further acknowledged by **John Gibbons**, Assistant to the President for Science and Technology, who wrote:

> As you may know, the first PCAST report of this administration was of tremendous value to the President. In my judgement, the report prepared by PCAST's Panel on U.S.-FSU Cooperation to Protect, Control, and Account for Weapons-Usable Nuclear Materials has had a greater impact than any PCAST report in decades.
>
> Your contributions to this PCAST study have succeeded in focusing the highest levels of the U.S. government on expanding our effort to address this critical national security issue. I salute your efforts and add my thanks to those of the President on a job well done.

BWIS Meeting
Diversity & Elections

Lorraine Merdon, who is the Manager of the Diversity Office in the Human Resources Division, will offer an "Intro to Diversity 101," at the next meeting of Brookhaven Women in Science (BWIS), on Wednesday, September 27, at noon, in Room B, Berkner Hall.

Merdon will explain what diversity is and how the Lab's diversity programs will affect BNL employees. She'll review the needs analysis that she carried out in her first months on site to determine what programs exist at the Lab and how well they mesh with what is needed. Then, she will discuss programs that the Diversity Office will introduce in October.

Elections of BWIS officers for 1995-96 will precede Merdon's talk, to which all are invited; bring your lunch.

Aerobic, Stretch Class: A New Twist

To make attending BERA Aerobic dance and stretch classes easier for everyone, the classes are now being held on a continuous basis, rather than in multi-week sessions.

So, participants may now purchase blocks of classes in advance or pay as they go to attend any of the three weekly classes held at 5:15 p.m. in the Recreation Hall in the apartment area: Tuesday and Thursday aerobics, and Wednesday stretch. The cost is $4 per class, or $35 for any ten classes.

For more information, call Pat Flood, Ext. 7886, e-mail flood1@bnl.gov, or Kara Villamil, Ext. 5658, e-mail karav@bnl.gov.

Be Social Saturday

Tomorrow evening, Saturday, September 23, all are invited to tango and cha-cha the night away at the next monthly informal social sponsored by the BNL Ballroom, Latin & Swing Dance Club. It will be held from 8 p.m. to midnight in the North Ballroom of the Brookhaven Center. The suggested contribution is $1 per person, which goes into the club's music fund. For more information, contact John Millener, Ext. 3853.

Atlantic City Trip

The next BERA-sponsored, one-day trip to Atlantic City will be to Trump Castle Hotel and Casino on the marina, on Saturday, October 28. The initial cost will be $22, but the hotel-casino will give a $10 coin return. The bus will leave the Brookhaven Center at 8 a.m., with an extra pickup at LIE Exit 63, if requested. After a seven-hour stay in Atlantic City, return will be about 11 p.m.

Buy tickets now at the BERA Sales Office in Berkner Hall, weekdays, 9 a.m. to 1:30 p.m. For more information, call Andrea Dehler, Ext. 3347, or Kay Dellimore, Ext. 2873.

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BNL's 3rd Healthfest – A Week Of Health, Fitness & Safety

This year, not only are BNL employees invited to participate in *Healthfest* — the Lab's third celebration of personal health, fitness and safety scheduled for Wednesday, October 11, through Saturday, October 14 — but their families may also attend the festivities on Saturday.

The four-day festival has the following schedule of activities:

Wednesday, October 11

- **Pre-walk stretch clinic** - (rain or shine) 11:30 a.m. - noon, at the Science Education Center, Bldg. 438.
- **Employee 2-mile Fitness Walk** - (rain or shine) noon - 1 p.m., start at the Science Education Center, Bldg. 438.

Thursday, October 12

- **Pre-run stretch clinic** - (rain or shine) 11:30 a.m. - noon, at the Biology Department, Bldg. 463.
- **Employee 5-kilometer (3.1-mile) Fitness Run** - (rain or shine) noon - 1 p.m., start at the Biology Department, Bldg. 463.

Friday, October 13

- **Employee Health, Fitness & Safety Fair** - 11 a.m. - 2 p.m., at Berkner Hall, Bldg. 488.
- **Stress Management and Relaxation Techniques Workshop** - noon - 12:30 and 12:30 - 1 p.m., at Berkner Hall, Bldg. 488.

Saturday, October 14

- **Employee and Family Health, Fitness & Safety Fair** - 10 a.m. - 2 p.m., at Berkner Hall, Bldg. 488.
- **Family Tennis Games** - 10 a.m. - noon, on the BNL Tennis Courts.
- **BNL All-Star Basketball Game** - 11 a.m. - noon, in the Gymnasium.
- **Ballroom Dance Lesson for adults** - 11 a.m. - noon, in the North Ballroom, Brookhaven Center, Bldg. 30.
- **Country/Western Dance Lesson for adults** - noon - 1 p.m., in the North Ballroom, Brookhaven Center, Bldg. 30.
- **Family Fitness Bicycle Ride** - noon - 1 p.m., start at the Science Education Center, Bldg. 438.
- **Water Safety & Rescue Demonstration** - 12:30 - 1 p.m., at the BNL swimming pool, Bldg. 478.
- **Family Fitness Swim** - 1 - 4:45 p.m., at the BNL pool, Bldg. 478.
- **Water Aerobics Lesson** - 1 - 1:30 p.m., at the BNL pool, Bldg. 478.

While on Friday, the Health, Fitness & Safety Fair will feature displays, demonstrations and screenings of interest to adults, it will be expanded on Saturday, to include children's activities.

For more information and to sign up for the walk, run, workshop, tennis, dance lessons and/or bicycle ride, look for a *Healthfest* mailing to all employees or see the Brookhaven Bulletin of September 29.

Racquetball

There is still time to send in your application to become a member of the BERA Racquetball League, which will begin games on Thursday, October 5.

To receive an application or for more information, call Lois Marascia, Ext. 3315.

IBEW Meeting

Local 2230, IBEW, will hold its regular monthly meeting on Monday, September 25, at 6 p.m., in the Knights of Columbus Hall, Railroad Avenue, Patchogue. The agenda includes regular business, committee reports and the president's report.

Bowling

Red & Green League

Week of September 4

R. Eggert 256/246/677 scratch series, E. Larsen 238/218/602 scratch, G. Weresnick 238, J. Griffin 224/604 scratch, K. Koebel 213, S. DiMaiuta 208, R. Mulderig 207, R. Larsen 202, J. LaBounty 200, R. Wiseman 200.

Week of September 11

J. Griffin 279/248/217/744 scratch, J. Meier 233, D. Fisher 230, R. Larsen 226/224/645 scratch, K. Koebel 224/202/618 scratch, B. Giuliano 222, E. Larsen 222, R. Eggert 215/202, B. Geib 213, J. LaBounty 211, R. Prwivo 204, S. DiMaiuta 204, K. Asselta 200.

Purple & White League

Week of September 11

R. Raynis 223/210/605 scratch series, R. Wiseman 219/218, S. Frei 219, G. Mehl 219, J. McCarthy 215, R. Larsen 209, E. Sperry IV 205/201, M. Picinich 200, M. Haller 194/183, A. Almasy 194/180, M. Addessi 194, J. Meier 193, D. Fisher 188/183, P. Wynkoop 187/186, M. Harris 187, R. Picinich 187, J. Flanagan 184, K. Botts 181, C. Wood 179, T. Meier 175.

Amateur Radio Club

The BERA Amateur Radio Club will next meet on Thursday, September 28, at noon in the third-floor conference room, Bldg. 1005. All Lab employees, guests and licensed amateur-radio operators are invited. For more information, contact Chris Neuberger, Ext. 4160, or Nick Franco, Ext. 5467.

Swim Lessons

Sign up now at the BNL pool, Bldg. 478, for swim lessons for children and adults. In addition to the lesson fee, participants must either purchase a season pool pass or pay the $2 daily pool fee. For more information, contact Head Lifeguard Susan Dwyer, Ext. 3147, after 4 p.m.

For Children

Eight weeks of children's lessons will be offered from 4 to 4:45 p.m. Held on Tuesdays, beginner and advanced beginner lessons will begin on October 10 and end on November 28. Advanced beginner and intermediate lessons will be held on Thursdays, October 12 through November 30. No make-up classes will be offered.

Red Cross certification will be awarded to children who meet the requirements by the end of the classes. The cost is $40 per child.

For Adults

Adult's lessons for beginners and intermediates will be offered from 5:15 to 6:15 p.m. on Wednesdays for eight weeks, October 11 through November 29. These lessons are open to all BNL employees and family members who are 18 years or older. The cost is $40 per person.

Microcomputer Club Award to Student

This year, the high school students in the Community Summer Science Program (CSSP) had an extra incentive to complete the optional oral presentation due at the end of their BNL stay: BERA Microcomputer Club president Steven Stein, club vice-president Victor Gutierrez, and member Martin Kramer judged the CSSP presentations, held the morning of Friday, August 18, and awarded a prize of $250 donated by the club.

Explained Stein, "While the main objectives of the club are to promote understanding and enjoyment of computing, sharing information and techniques with members and the lab community, in a broader sense, our fundamental objective is education. The club, therefore, felt it appropriate to offer this encouragement to the CSSP students at BNL."

CSSP, which has been run by the Office of Educational Programs for about ten years, provides an opportunity for juniors and seniors from local high schools to see what science is all about. For six weeks, the students attend morning classes, then participate in workshops or internships in the afternoon. At the end of the program, students write a report on their work done at BNL and may also choose to make an oral presentation.

Of the 38 students participating this year, eight gave oral reports on subjects as diverse as uranium waste reduction and breast cancer in males.

At the luncheon that followed for all participants, the club announced the winner: Melanie Wuthenow, a June graduate of Westhampton Beach High School, who described her part in putting information about the g-2 experiment at the Alternating Gradient Synchrotron on a World Wide Web home page, was awarded a certificate and $250 towards her further education. The Microcomputer Club hopes to repeat the prize next year.

— Liz Seubert

Equipment Demo

On Wednesday, September 27, from 11 a.m. to 2 p.m. in Berkner Hall, Scott Specialty Gases will exhibit gas-handling equipment and showcase calibration gases.

Windows '95 Seminar

The Personal Computer Resource Center in the Computing & Communications Division (CCD) has scheduled a seminar on the "Pros and Cons of Windows '95," to be held on Friday, September 29, at 10 a.m. in the CCD seminar room, Bldg. 515. Seating is limited. The seminar may also be scheduled for October. For more information, call Pat O'Connor, Ext. 7341.

ANS Meeting

The Director of the Centre for Disarmament Affairs at the United Nations, Prvoslav Davinic, will speak on "1995 Review of the Nuclear Non-Proliferation Treaty," at the next meeting of the Long Island Section of the American Nuclear Society (ANS), on Wednesday, September 27, at the Radisson Islandia Hotel.

Davinic will discuss the 1995 conference on the review and extension of the treaty on the non-proliferation of nuclear weapons, covering the events of the conference and its ramifications for the treaty's signatories.

Following cocktails at 6 p.m. and dinner at 7 p.m., the speaker will be introduced by David Rorer, Deputy Manager of BNL's Reactor Division. All are invited. To make reservations, call Vera Meier, Ext. 7702.

Arrivals & Departures

Arrivals

Eric S.C. Kwok.....App. Science

Departures

This list includes all employees who have terminated from the Lab, including retirees:

Charles R. Ashby Jr......Medical
David A. Pascarella.....Director's Off.
Shengke Wang.....App. Science

Cafeteria Menu

Monday, September 25	
Soup: Spicy potato & kale	.90/1.20
A la Carte: Pasta w/sausage marinara	3.50
Lite: BBQ chicken	3.95
Deli: Baked ham & beans	3.20
Grill: Reuben	3.30
Tuesday, September 26	
Soup: Chicken noodle	.90/1.20
A la Carte: Roasted chicken w/stuffing	3.95
Lite: Herb-crusted pork loin	3.85
Deli: Corned beef & cabbage	3.20
Grill: French dip	3.30
Wednesday, September 27	
Soup: Broccoli & cheese	.90/1.20
Display Cooking: Chicken Caesar	4.75
Deli: Turkey w/stuffing	3.20
Grill: Tuna melt	3.30
Thursday, September 28	
Soup: Beef vegetable	.90/1.20
A la Carte: Baked lasagna w/focaccia	3.65
Lite: Hickory-grilled steak	3.95
Deli: Roast beef w/mashed potatoes	3.20
Grill: Spanish omelet	3.30
Friday, September 29	
Soup: New England clam chowder	.90/1.20
A la Carte: Grilled liver & onions	3.85
Lite: Italian fish roll-up	3.95
Deli: Pepperedpastrami Dijonnaise	3.20
Grill: Meatball hero	3.30

Classified Advertisements

Placement Notices

The Laboratory's placement policy is to select the best-qualified candidate for an available position. Consideration is given to candidates 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, handicap or veteran status.

Each week, the Human Resources Division lists new placement notices. The purpose of these listings is, first, to give employees an opportunity to request consideration for themselves through Human Resources, and second, for general recruiting under 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, or call the JOBLINE, Ext. 7744 (282-7744), for a complete listing of all openings.

Current job openings can also be accessed via the BNL Home Page on the World Wide Web. Outside users should open "http://www.bnl.gov/bnl.html", then select "Scientific Personnel Office" for scientific staff openings or "Employment Opportunities" or "BNL Human Resources Division" for all other vacancies.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees.

NS 3345. RIGGING SUPERVISOR - Requires substantial experience in the trade. Will be responsible for first-line supervision in the rigging section. Directs employees on jobs, including assignment, training, scheduling, grievance handling and technical direction. Coordinates all work of unit, and maintains records and reports. Supplies technical assistance and information as requested. Plant Engineering Division.

NS 3346. GENERAL SUPERVISOR, ELECTRICAL - Requires substantial experience in the trade. Will be responsible for control and efficient operation of the electrical service functions. Through first-line supervisors, coordinates the task of various units to ensure expeditious completion of assigned projects and furnishes technical information to departments when necessary. Plant Engineering Division.

Motor Vehicles & Supplies

93 NISSAN SENTRA SE-R - 5-spd., 36k mi., p/sunroof, ABS, air bag, ac, cruise, tape, alarm, $11,300 neg. Rob, Ext. 5161.

92 ISUZU RODEO SX 4x4 - 4-dr., a/t, am/fm cass., 43k mi., excel., $15,000. Rich, Ext. 7160 or 929-8294.

92 VOLVO 940 - turbo, clean, 30k mi., white w/beige int., a/t, asking $17,500. Roy, 286-5962.

91 KAWASAKI VULCAN 500 MOTORCYCLE - extras, gar., 6.5k mi., blue/gray, excel. cond., $875. Dave, 878-4246, leave message.

90 T-BIRD - a/t, loaded, excel. Angelo, 289-6919.

89 TOYOTA SUPRA - silver, 5-spd., ac, p/s, p/b, cruise, targa top, under warr., mint cond. David, Ext. 3166 or 821-1934.

89 CHEVY CORSICA - 4-dr., 4-cyl., ac, a/t, cruise, tilt, high mi., $2,500. Gabriel, Ext. 2707 or 341-1087.

89 HONDA CRX - 5-spd., silver, ac, 45 mpg, 2-seater, excel., $4,500. John, Ext. 7671 or 765-1299.

88 NISSAN SENTRA - red, 2-dr., 5-spd., sunroof, ac, runs well, ask. $2,500. Willie, Ext. 5377 or 821-7327.

87 TOYOTA CAMRY - ac, a/t, am/fm cass., cruise, 144k mi., gar., excel. cond., $3,900. Bill, 878-4356.

87 MERCURY SABLE LS - s/w, A-1 cond., full power, third seat, beige, 98k mi., $5,000. Austin, 363-2796.

86 TOYOTA COROLLA - 4-dr., 5-spd., am/fm, cruise, ac, gar., 95k mi., excel., $2,950. Bob, 737-1786.

86 AUDI QUATTRO - 5-spd., ac, sunroof, excel. cond., $3,500. Gail, Ext. 3338.

86 TOYOTA CAMRY LE - ac, p/b, p/w, alum. alloy rims, new brakes & starter, sunroof, well maint., $2,500. James, 399-4912.

86 CHEVY NOVA - h/b, a/t, p/s, p/b, ac, $900. Skalyo, Ext. 2509.

86 DODGE 600 - coupe, full power, a/t, cruise, tilt, well maint., clean, runs well, mint, $2,800. Bob, 744-3569.

86 PORCHE 944 - turbo, red/black, loaded, 86k mi., mint cond., $9,999. Jim, Ext. 2183 or 689-8284.

85 DODGE COLT - 82k mi., new exhaust system, tires & brakes, good eng., a/t, ac, needs work, asking $300. George, Ext. 4013.

85 VW JETTA - tan, sunroof, 5-spd., 4-dr., v.g. cond., must see, must sell, $2,200. Mark, 924-0960.

85 VOLVO 240 DL - 5-spd., 89k mi.. Neal, 286-2435.

82 NISSAN STANZA - 4-dr., a/t, ac, am/fm stereo cass., 132k mi., runs well, looks good, recently passed state inspection. Khamit, Ext. 3189.

82 HONDA CIVIC - 4-dr. h/b, 5-spd., 134k mi., new tires, alt., boots, 33 mpg, runs well, $750 neg. Ext. 2045.

80 CHEVY MONTE CARLO - V-6, 83k mi., clean in/out, a/t, ac, cruise, very dependable, $1,000 neg. Billy, Ext. 5046 eves.

79 JEEP CHEROKEE CHIEF - 360 eng., V-8, a/t, trailer hitch, quadra trac, runs well, excel. cond. Mary, Ext. 3415.

76 LANCIA SCORPION - $3,200. John, Ext. 2788.

TIRES - 2 Goodyear P225/75R14, like new, $40 ea.; 1 Firestone P215/70R14, $20. 698-9274.

ROOF CARGO CARRIER - Sears, beige, excel. cond., $35. Ralph, Ext. 4171 or 878-1280.

BUMPERS - new, front & rear, '95 Chevy van, $50 ea. firm. Don, Ext. 7237 or 929-6571 after 5:30 p.m.

HILO CAMPER - 14', kit., bath, sleeps 4, new tires, good cond., $600. Rich, Ext. 7160 or 929-8294.

TOYOTA CELICA GT - 5-spd., p/b, p/w, p/l, ac, loaded, excel. cond. Frank, Ext. 3120 or 727-5096.

TIRES - Michelin, MXV3, 195/60R15, good rubber, best offer. Bill, 924-6940 after 4 p.m.

TIRES - Bridgestone desert duelers, dirt/snow, P/215/75-R15, light truck, set of 4 radials, 15k mi., $150. Dave, 878-4246, leave message.

CAR STEREO - Craig, fm radio w/cass., under dash, w/bracket for removal, ask. $25. Frank, Ext. 2022.

SEATS - 2, bucket, swivel, adjustable, $10 ea. Pete, Ext. 5105 or 399-2813 after 5 p.m.

FORD PARTS - 302 alum. intake manifolds, headers, Mallory electronic distributor, '88 stock 5.0 roller motor, fuel inj., low mi. Wayne, Ext. 7238.

Boats & Marine Supplies

23' PEARSON - 1979, sleeps 4, stove, head, 3 sails, o.b., $5,200. John, Ext. 2788.

20½' COBIA - 1970, 1982 100-h.p. Johnson, cuddy cabin, dual batt., new canvas, good cond., $2,500. 543-5425.

19½' THOMPSON - 1987 cuddy, 140-h.p. Merc. i/o, full canvas, VHF radio, access., Shorline EZ-load trailer excel. $6,495. 698-5332.

16' STAR CRAFT - alum., 50-h.p. Evinrude, new Navy top & elec. winch & tri to fit., asking $1,900. 924-6751.

Furnishings & Appliances

AIR CONDITIONER - RCA, 8,000 Btu, 3 yrs. old, excel. cond., $200 neg. Alison, Ext. 4410 or 878-0093.

BAR - oak, dark stain, 55" long, brass top & brass foot rail, 2 swivel chairs, $200; small refrigerator, 4.9 cu. ft., like new, neg. Bob, Ext. 2351 or 475-4382.

BEDROOM SET - glass tables, mirror table, love chairs, queen boxspring, mattress & hdbrd. Jodi, 928-9136.

BEDROOM - 2 dressers, 2 beds, 2 end tables, solid hardwood, $100; computer desk w/hutch, $50; beds, hi-riser, v.g. cond. 581-7656.

BLENDER - Panasonic, new, 7 spds., $15; men's dress shoes, black, Walkover, 11D, $60; curtains, 10 pairs, white nylon, 81"Lx40"W, $5/pr. 475-7257.

CREDENZA - buffet cabinet; mirrored cube end table; 2 elec. wall sconces; 3-pc. kitchen set; kero. heater; glass top coffee table. 924-6940 after 4 p.m.

DAYBED - boxspring, mattress, cover & matching bolsters, $45; gas grill, 11"x22" cooking area, w/tank, $25. 878-1280.

DINING TABLE - Formica, ivory marble design, 4 light blue chairs, 1 leaf, $50 firm, delivered. Don, Ext. 7237 or 929-6571 after 5:30 p.m.

KITCHEN ACCESSORIES - Rubbermaid, other household items, brand new, never used, reasonably priced; PC software in sealed boxes. S. Spark, Ext. 4111.

KITCHEN SET - table w/leaf, Formica top, chrome legs, 4 chairs, wicker back w/chrome legs, $70. Jim, Ext. 2183 or 689-8284.

REFRIGERATOR - GE, 19.8 cu. ft., ice, white, 4 yrs. old, slight odor, $250 neg.; stove elec., GE, 27", drop-in, almond, 8 yrs. old, $150 neg. Cindy, 331-4487.

REFRIGERATOR - Sears, 18 cu. ft., white, v.g. cond., $200. Dan, 698-7322.

ROCKER - country, $75; speakers, $10; kitchen table & 4 chairs, excel., $125; fish tank, $10. Kathy, 744-2203.

TABLE - 42" round, antique oak, pedestal, dark finish, good cond., $125. Gerry, 447-6528.

TABLE - Queen Anne, 6 chairs, velvet seats, $200; French barrel chair, upol., wood frame, $50. Dave, 395-3484.

TODDLER BED - EvenFlo, incl. crib mattress, white, $35; high chair, EvenFlo, excel. cond., $25. Donna, 821-3739.

Tools, House & Garden

CEMENT MIXER - w/wheel, 8-h.p., $475. 924-5192 after 5 p.m.

COAL STOVE - Franco Belge, w/stainless steel pipe for chimney, $200. 395-3484.

HOT TUB - Poseidon, 5 yrs. old, seats 5, 5 jets, indoor/outdoor, 6'x71/2' redwood, w/cover, excel. cond., asking $1,750. Millie, Ext. 3775.

MONTAUK DAISIES - 3" pot, $1; 4" pot, $2; potted blue or bronze iris, $6; prickly pear cactus, 3" pot, $2. Jim, 325-9293.

FLOOR WAXING MACHINE - prof., General Line, variable speeds, like new, must sell, $450. 924-0960.

GRASS CATCHER - for Sears lawn tractor, rear-mount, hard-type. Bart, Ext. 2005 or 924-6761.

LAWN MOWER - Greenbriar, 20" cut, rotary, $60; yard vac, Montgomery Ward, 6-h.p., $75; MTD, 6-h.p.; snow blower, heavy-duty, $75. Dan, 698-7322.

LAWN MOWER - elec., old, works well, $20; rotary mower cover, reinforced polyethylene, fits any walk-behind mower, $5. Linda, Ext. 2733 or 395-6784.

PUMP - Hudson Pitcher, good cond., stored for 30 yrs., $20. Joe, 281-7683.

SNAPPER - 21" cut, rear bagger, self drive, blade brake, snapperizer attach., excel. cond., $175. Dan, 698-7322.

TREES - Japanese maples, $10-$45+. 265-6542.

WORK BENCH - 66"x33", $25. Dave, Ext. 5460.

Sports, Hobbies & Pets

BIKE - men's, 10-spd., 27", good cond., $50. Ext. 4972 or 567-9025.

BICYCLE SEAT - toddler, for 2 bikes, Fisher Price, mint, $30. Donna, 821-3739.

CAMERA - Canon T60, 50mm lens, Cokin filter, 2X multiplier, 2 cases, flash, 100-200mm, Canon zoom, tripod, etc., $325. Tom, Ext. 5258.

CORNET - Olds Ambassador, excel. student horn, $125. John, Ext. 4570 or 751-2655.

DOG CAGE - new, heavy-duty, chrome wire, hinged front, floor pan, orig. $65, asking $35. Ralph, Ext. 4171 or 878-1280.

EXERCISER - Body by Jake, used 5 times, $80. 331-1003.

GUITAR AMP - Peavey Bandit 50W, 12" speaker, channel switching, reverb, $150. Greg, Ext. 2575.

GUITAR - Ivanez Bass, ATK, 300 series, active electronics, mint cond., $650. Corinne, 654-3697.

PIANO - upright, good cond., $100. 878-1178.

PIANO - Wurlitzer, $800; grandfather clock, $800. Harry, Ext. 3450.

POOL TABLE - 3/4" slate bed, standard size with cues, access., ceiling light fixture, excel. cond., $475. 924-5192.

PUPPY - Lab mix, black, has shots, 8 mos. old, $30. Lorijean, 744-5857.

RABBIT - 6-mo. old, w/cage, supplies, friendly, house trained, paid $150, asking $80. 924-0617.

SEWING MACHINE - Singer, w/fold out cabinet, drawers, all attach., book, $150. Pete, Ext. 5105 or 399-2813.

TREADMILL - Leifstrider 3325, 0-6 mph, auto incline, $250. Mike, Ext. 4293.

WINDSURFERS - 3, sail, boom, mast, board, 2 beginner, 1 intermediate. Maj Britt, Ext. 1388.

Audio, Video & Computer

CD ROM - drive, interface, sound blaster II, stereo sound card, new, w/software drivers, $175. Greg, Ext. 2575.

COMPUTER - Mac, 20 MB, 40 MB Powerbooks, $500 & $700. Mark, 924-0960.

COMPUTER - Mac 286, screen & floppy drive, DSO, chess, finance software, $50. Dave, Ext. 5460.

COMPUTER - parts, HD, 84 MB IDE, $45; Trident 1 MB video card, ISA, $40; monitor mono VGA, $35. Bart, Ext. 2005 or 924-6761.

PRINTER - Panasonic, 24-pin wide carriage; 6-pen IBM color plotter, HP7475A compatible, excel. cond. Paul, Ext. 7697.

STEREO - Proton AM300 amp/rec., CD player, cass. deck, 2 Boston speakers, 3 yrs. old, $500 neg. Janet, Ext. 2345 or 929-3910.

TV - b&w, 12", Magnavox, $10. Pete, Ext. 5105 or 399-2813 after 5 p.m.

TV - 32", color, w/surround sound, must sell, $50. Glen, Ext. 7488.

TV - console, 21", Zenith, color, asking $100. 924-6751.

VCR - VHS, excel. $85; cellular phone, EBC20, $85; computer, IBM compatible, 8 MB RAM, 40 mb HD, 5½" & 3½" drives, more. 924-1224.

Miscellaneous

JACKET - grey fox, $150; wedding dress, size 7, $300. Harry, Ext. 3450.

TICKETS - *Beauty and The Beast*, Oct. 1, 1:00 p.m., $67.50/ea. Sue, Ext. 4461.

TICKETS - 2, *Magic Flute*, Met Opera, Oct. 28, matinee, $70/ea. Ext. 3701 or 751-6493.

Free

COAL - ea. 10 cu. ft. Mark, Ext. 4347.

GREAT DANE - 3 yrs. old, fawn, 110 lbs., not brought up w/children. Al, 331-1003.

IBM PC - monitor, keyboard, intermittent problem, probably needs cleaning. 286-8849.

RABBITS - one white and one gray w/cage; black kitten w/white spots, 3 mo. old. Lorijean, 744-5857.

Yard and Garage Sales

BELLPORT - Sat. 9/23, multifamily, furn., misc., 2 Raynor Lane off S. Country and Browns Lane.

MEDFORD - 9/23-24, 9 a.m.-5 p.m., furn., household, clothes, 270 Robinson Ave., ¼ mi. S. of 495 off Rte. 112.

CENTER MORICHES - 9/23, 9 a.m.-4 p.m., corner of RR. Ave. & Montauk Highway.

Car Pools

LIE EXIT 36 - fourth person needed. John, Ext. 5181.

BNL-STONY BROOK - student needs ride Mon., Tues., Thur. Martin, Ext. 1003.

Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, religion, sex age, national origin, disability or veteran status of the applicant.

For Rent

CALVERTON - 3-bdrm. townhouse, 1½ baths, w/d, d/w, w/w, 2 decks, avail. 10/1. 874-2730.

E. YAPHANK - 1-bdrm. apt., l/r-kit. combo, w/w, priv. ent., perfect for single, nonsmoker, $550/all. Donna, 924-9282.

MEDFORD - new 1-bdrm. apt., l/r, kit., bath, priv. ent., no smoking, no pets, near all, $650/mo. incl. all. 447-6505.

MIDDLE ISLAND - lg. 1-bdrm. co-op, upper unit, eik, full bath, w/d, d/w, cac, w/w, carpet, terrace, cable, igp, tennis, $725/mo. 924-9664.

PORT JEFF. VILLAGE - small house, full furn., w/all appli., suitable for 1-2 adults, avail. Oct/Nov.-Apr./May, date neg., $1,500/mo. incl. util. Harriet, Ext. 3484 or 331-7917.

ROCKY POINT - lg. 2½-rm. apt., sep. ent., full kit., $500/mo. 821-1246.

ROCKY POINT - 1-bdrm. apt., eik, lg. l/r, screen porch, deck, perfect for 2, no pets, city water, furn., $750/mo. + util., Sept.-June. 744-0584.

ROCKY POINT - 1-bdrm. apt., l/r-d/r, kitchenette, full bath, carpeting, patio, parking, walk to beach, no pets, $600/mo. incl. all, refs. req. 718-721-4271 or 821-6698.

WADING RIVER - 1-bdrm. cottage, quiet street, walk to Wildwood Park, wood stove, nice yard, $700/mo. + util., avail. 10/1. Mike, Ext. 4202.

WESTHAMPTON BEACH - 3-bdrm. waterfront contemporary, 2 baths, deck, waterviews from every room, furn., avail. Oct-May, $750/mo. plus utilities. Ray, Ext. 7224 or 261-6455.

HILTON HEAD, SC - 2-bdrm. condo, sleeps 6, 2 baths, full furn., pool, beach, golf nearby, April-Sept., $475/wk. Guy, Ext. 3147 or 689-5378.

For Sale

BAY SHORE WEST - split ranch, updated, treed grounds borders Southwood Ho Country Club, $179,900. Pat, Ext. 3275 or 665-0447 or 298-5648.

E. PATCHOGUE - South Country Shore, 3-bdrm. ranch, eik, d/r, l/r w/fp, bi-level cedar deck, shed, 135'x100', walk to bay, marina, $147,000. Fran, 289-0526.

E. SETAUKET - 5-bdrm. house, 3 baths, 3 levels, poss. M/D, sliding door leads to wraparound deck, hardwood floors, 2½-car gar., 3VSD, ask. $192,000, option for rent, $1,650/mo. 689-6495.

MIDDLE ISLAND - 4-bdrm. Colonial, eik, l/r, d/r, den, $130,000. Diana, Ext. 4262 or 924-6002.

PATCHOGUE - 4-5-bdrm. ranch,cul-de-sac, 3½ baths, fin. bsmt., 2-car gar., $170,000. Marge or Faith, 475-6234 eves.

ROCKY POINT - 3-bdrm. custom ranch, corner plot, landscaped, w/w, custom kit. cabinets, eik, 4 appl., OHWH, city water, $74,990. Donald, 473-6570 after 7 p.m.

ROCKY POINT - 2-story chalet, 1.23 acres, 22 Prince Rd. west end, $169,000. Ruth Ann Lutz, Ext. 7774 or 929-6235.

SHIRLEY - 4-bdrm. Cape, 2 baths, lg. yard, solar hot water, wood/coal stove, $89,900. Mark, Ext. 4289 or 281-5060.

WADING RIVER - 3-bdrm. Colonial, 2½ baths, 2-car gar., custom kit., Jennair, gazebo, shed, igs, igp, deck, steam bath, satellite dish, SWRSD, 1.1 acre, $189,900. 929-8323.

WADING RIVER - Clarendon, custom 4-bdrm. Colonial, 2½ baths, enclosed porch, 1 acre, SWRSD, $295,000. 929-5984.

PORT CHARLOTTE, FL - ¼-acre bldg. lot, developed neighborhood, ready to build, $9,000. 929-8323.

SCHOHARIE CO., NY - new 5-rm cottage, 5 acres, all conveniences, stream, near hunting, fishing on state lands, 3½ hrs. from central L.I., $44,000, taxes, $1,200/yr. 467-8393.

WASHINGTON, NC - 1.13 wooded acres, waterfront community, pool, clubhouse, marina, 35' boat slip on the Pamlico River off the Inter-Coastal Waterway, $36,000. Ken, 281-5565.

Wanted

BABY-SITTER - in my Center Moriches home, Mon., Tues., 8 a.m.-1 p.m., 3 kids, ages 5-7. Anna, 878-6760 or Cindy, 874-3652.

BABY-SITTER - for 2 children in my Selden home, $25/day. Laura, 696-6148.

BICYCLE - men's 10-spd. or more, must be in working cond., $25 or less; telescope, used, but in reasonable cond. Adam, Ext. 3005.

BUGGY WHEELS - or similar for kid's go-cart project. Peter, Ext. 2824 or 727-3218.

CALLER - Alice, you called for carpentry estimate, but I lost your phone number. Chris, 399-7493.

CAT CARRIER - airline-quality. Mike, Ext. 7316.

CHILD CARE - on-site pref. for a 5-yr.-old, M-F, after school. Ext. 3165.

COMPUTER EQUIPMENT -& electronics, inexpensive, nonworking monitors, printers, TVs, VCRs, amplifiers, micrwaves, etc. Pierrot, Ext. 3749 or 744-7996.

CURLERS - Lock-N-Roll flexible stylers w/heating base by Clairol, size BT-1 or larger, will pay $15 for BT-1, $10 for others. 632-4258.

DRYER - apt.-size, 10 volt, a.c, prefer portable type, must be able to fit through 24"-wide door. Don, Ext. 6237 or 929-6571 after 5:30 p.m.

HOUSEMATE - share 4-bdrm., 3-bath waterfront home, rent $290/mo. + util., avail 10/1. Skip Ext. 3806 or Jack, Ext. 4930.

HOUSEMATE - to share quiet 3-bdrm. house w/2 graduate students, $345/mo. incl. util. avail 10/15. Michelle, Ext. 7793 or 928-8006.

LAWN MOWERS - and lawn tractors, old but complete only. Dan, 698-7322.

PEOPLE - wanting to improve speaking and presentation skills in workshops sponsored by BNL-BERA Toastmasters. Beth, Ext. 3373.

ROOMMATE - to share 2-bdrm. apt., 5 mi. to Lab, total cost about $400/mo. w/heat and electricity. Jürgen, Ext. 5739.

ROTOTILLER - gas-powered, mini-size. Harriet, Ext. 2800.

SCOOTER OR SPREE - in good cond. Mark, Ext. 4289.

SUNFISH SAILBOAT - any cond. Jim, Ext. 5400 or 878-6098.

SLIDE PROTECTOR - used, manual. Chris, 924-1224.

VOLUNTEERS - desperately needed to help keep the Food Drive going. Pleae call Carole Kerr, Ext. 7100.

Farewell Gatherings

RETIREMENT PARTY - BBQ for Lew Jacobson, 9/27, 5:15, Brookhaven Center, $18/per person incl. gift. George, Ext. 5456 or Patti, Ext. 3145.

Classified Ad deadline is 4:30 p.m. Friday for publication Friday of the next week.