

# BROOKHAVEN BULLETIN

Volume 33 - Number 41 / October 19, 1979  
BROOKHAVEN NATIONAL LABORATORY



Not only does the sun rise each day, but so does construction of Brookhaven's Intersecting Storage Accelerator (ISABELLE), on the 200-acre site. —photo by Humphrey

## ISABELLE Construction Update

The building of ISABELLE is "accelerating." Above is a recent view of the steel arch being erected to form the magnet enclosure tunnel as it begins its 12,578 feet circuitous route around the ISA site. The section shown represents the approximately 550 feet of enclosure completed to date.

The first construction contract for the ring enclosure was awarded last spring and provided for one-third of the ring (Sextants 5 o'clock and 7 o'clock). Work is now about 40% complete on this contract with an expected finish in September of 1980. A contract to construct the second one-third of the ring, (Sextants 1 o'clock and 3 o'clock) was recently awarded and preliminary work is already under way. The firm of A.D. Herman Construction Co., Inc. of

Huntington Station, N.Y. is the general contractor on these first two contracts for the ISA ring. The third and final segment will be bid and awarded sometime after January 1, 1980.

The construction work is being managed by the Safeguard Construction Management Corp. under Peter Wood, Construction Manager. The BNL effort is directed by E. Parke Rohrer, Head of the ISABELLE Construction Division.

*United Nations Day*

*October 24*

## BNL Lecture UV And Skin Cancer

Biochemist Betsy Sutherland's work centers on the damage produced in cells by ultraviolet light, and the enzymatic mechanisms cells have for repairing such damage. On Wednesday, October 24, at 8 p.m. in Berkner Hall, she will discuss her research in a Brookhaven Lecture entitled "Studying Skin Cancer in a Test Tube."

In collaboration with Drs. Leonard Harber and Irene Kochevar at the Columbia College of Physicians and Surgeons, she has developed methods of directly examining damage produced in human skin by sunlamp exposure. The ultraviolet (UV) light from the sunlamp is absorbed by the skin cells, especially the DNA in the nuclei of the cells.

The UV causes several kinds of chemical change in DNA. One of the most important is the pyrimidine dimer formed between adjacent pyrimidine bases on the same DNA strand. Dimers are responsible for much of the killing and mutation caused by UV in simple organisms. They are also suspected of being important in producing skin damage and cancer by UV.

From volunteers with normal skin who are exposed to the sunlamp, the investigators obtain 3 to 4mm biopsy samples. The DNA extracted from the samples is treated with a UV-endonuclease enzyme which makes a break in the DNA adjacent to each pyrimidine dimer damage; thus, the more dimers, the smaller the resulting DNA. The researchers have shown that dimers can be detected in irradiated human skin, even at sunlamp exposures too small to redden the skin.

Sutherland is also investigating the ability of ultraviolet light to transform normal human cells into cancerous ones. She and her group are among the first to observe this conversion. In these experiments, the investigators expose human cells growing in culture to ultraviolet light, and allow them to grow for several generations to express any mutations caused by the UV. The cells are then tested for their likeness to normal and cancerous cells.

Sutherland says that from these studies, they hope to determine the cellular components responsible for absorbing the harmful ultraviolet light, the damage leading to transformation of the cells, and the repair mechanisms which are important in circumventing this process in human skin.

Betsy Sutherland came to the Biology Department in 1977 from the University of California at Irvine where she had been on the faculty for five years. When she left California, she was an Associate Professor in the Department of Molecular Biology and Biochemistry. Sutherland received a B.S. in biology and an M.S. in cytochemistry from Emory University, and obtained her Ph.D. in molecular biophysics from the University of Tennessee in 1967. During the latter period, she held graduate fellowships from Oak Ridge Associate University both on the UT campus, and for research at ORNL. Her postdoctoral fellowships include one granted by the National Institutes of Health at the Walter Reed Institute of Research from 1967-69, and by the University of California, Berkeley, where she



Betsy Sutherland

spent the following two years in the Dept. of Molecular Biology and Virus Laboratory.

She and her husband, John, who is also on the scientific staff of the Biology Department, live in Wading River.

A buffet supper is served at 6:30 p.m. at the Brookhaven Center before the lecture. Many find it convenient and it is a pleasant way to meet members of other departments. Reservations for the buffet should be made in advance by calling Ext. 3541 before 5 p.m. on the day of the lecture.

## Warburton Heads Tandem Research

Last month, Ernest Warburton became the Group Leader of the Tandem Van de Graaff Research Group for a term of three years. He succeeds Andrew Sunyar, who was Group Leader since 1973. During Sunyar's tenure, the group earned a reputation as a world leader in heavy-ion physics. Sunyar will return full time to his research on high-spin states in rare earth nuclei.

Warburton is well known in the nuclear physics community for his comprehensive and prolific work on the spectroscopy of nuclear levels in the low mass region of the periodic table. Of his new position, Warburton said, "In five years we hope to have a new accelerator for heavy ion research into nuclear physics. During the transitional period, our research program will be carried out with an eye to this future."

## Milton G. White Dies

Milton G. White, a Trustee of Associated Universities, Inc. for 12 years, died suddenly on Tuesday, October 16, in Princeton, N.J. He was 69 years old.

Dr. White resigned from the AUI Board in April of this year after his election as President of Universities Research Association, a consortium responsible for the operation of FermiLab. During his long tenure as an AUI Trustee, he also served from time to time as a member of the Executive Committee, and as chairman of the Trustees' Committee for BNL. As a Board member, he was particularly interested in the high energy physics and applied science research programs at Brookhaven. In the

(Continued on page 2)

## Arrivals & Departures

### Arrivals

Paul R. Bender.....	Medical
David M. Brownstein.....	Accelerator
Henryk Pickarz.....	Physics
Venitios A. Polychronakos.....	Physics
Peter F. Stelmashuk.....	Plant Engrg.
William S. Slegeir.....	Energy & Env.
George H. Wunderlich.....	Plant Engrg.
William H. Van Zwienen.....	Accelerator

### Departures

Lawrence C. Andrews.....	Chemistry
Teena L. Camano.....	Nuclear Energy
Patricia A. Mulcahy.....	Energy & Env.

## IBEW Meeting

Local 2230, I.B.E.W. will hold its regular monthly meeting on Monday, October 22, 1979, at 8 p.m. in the Knights of Columbus Hall, Railroad Ave., Patchogue. There will also be an afternoon meeting at 2 p.m. for shift workers in the Union office at 31 Oak Street, Patchogue. On the agenda will be regular business, committee reports and the President's report. **Please Note Date.**

## The Greek Gourmet

"It's all Greek to me" will be the cry at the Cooking Exchange meeting on Wednesday, October 24. We'll be cooking the way the Greeks do, including the irresistible Baklava and other traditional favorites. Don't be among the missing!

Cooking Exchange meetings are held at the Recreation Building from 12:30 to 2:30 p.m. Admission is 75¢, and babysitting is provided at 25¢ per child.

Bunny Pietrzak, 751-1866, or Wendy Green, 878-8952, will be happy to answer any questions about the meeting.

## Cafeteria Menu

### Week Ending October 26, 1979

#### Monday, October 22

Potato leek soup	(cup)	.35
	(bowl)	.45
Turkey à la King		1.30
Western omelet & 1 veg.		1.35
Hot Deli - Sloppy Joe	(on bread)	1.40
	(on roll)	1.50

#### Tuesday, October 23

Split pea soup	(cup)	.35
	(bowl)	.45
Chinese pepper steak on rice		1.45
Poached fillet & 1 veg.		1.40
Hot Deli - Pastrami	(on bread)	1.35
	(on roll)	1.45

#### Wednesday, October 24

Cream of cauliflower soup	(cup)	.45
	(bowl)	.55
Breaded flounder fillet w/fries		1.40
Stuffed pepper w/spaghetti		1.45
Salad bar special		
Hot Deli - Knockwurst	(on bread)	1.35
	(on roll)	1.45

#### Thursday, October 25

Beef barley soup	(cup)	.35
	(bowl)	.45
Meat cakes w/buttered noodles		1.40
Scalloped ham & potatoes		1.35
Hot Deli - Roast turkey	(on bread)	1.35
	(on roll)	1.45

#### Friday, October 26

Fish chowder	(cup)	.45
	(bowl)	.55
Fillet of fish Parisienne		1.40
Barbequed spare ribs & 1 veg.		1.45
Hot Deli - Meatball hero		1.35

- SAGA FOODS -

## Some Use Coal To Cope With Cold

Some Lab employees are not too worried about the price of fuel oil this winter. They are using coal to heat their houses.

Gerry Blackford, Director's Office, bought a coal stove last year. "I went looking for a wood burning stove and ended up with a coal stove," he said. The winter before, he used 1200 gallons of fuel oil. Last winter, with the coal stove, he used 400 gallons, mostly to heat water.

About three tons of coal keep his house at an average of 72° F all winter. He buys his coal in bulk with 22 other persons, among them several other Lab employees. This winter, the group bought 70 tons at \$67 a ton. That price includes delivery. Without the discount rate, one ton of coal costs about \$91, so Blackford figures that by buying in bulk, he gets one ton free.

The group only buys certified anthracite coal (hard coal), which is best for home heaters and does not smell or smoke.

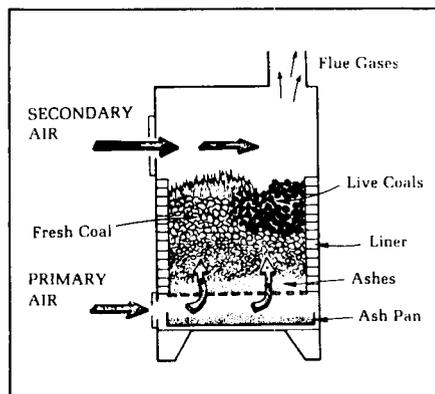
How does he store three tons of coal? "It takes up surprisingly little space. I have an outside storage bin which is 4 feet by 8 feet by 4 feet high.

Blackford's oil furnace thermostat stays down at 55° F. The only water circulating through the system is for domestic use, not for heating, so for long periods of time, water sits in the pipes. Blackford has taken the precaution of insulating his outside pipes in the garage.

Blackford paid \$640 last year for his stove. Again, he bought in bulk with a group and got a reduced rate. He says his stove is very attractive, but he might have paid an extra \$100 for that attribute. A stripped down model of the same stove was that much less. His stove is installed in the fireplace and has a Pyrex window for viewing pleasure. It is 20 inches deep, 30 inches long, and 40 inches high. "I know it's difficult to believe, but that one stove heats my two-story, four bedroom house," said Blackford. Herb Schulman and Bob Young, Safety and Environmental Protection, are other Lab employees who have installed coal stoves. Neither has the long term experience of Blackford, but both have been

heating their homes for several weeks on just coal and they anticipate having no difficulties through the upcoming colder months.

Blackford's stove uses "pea" size coal, which measures  $\frac{5}{16}$  to  $\frac{13}{16}$  of an inch. Every two days, he loads about 45 pounds of coal into his stove's hopper, which automatically dispenses the coal as needed. He fired up



Sketch of a basic coal burning stove. Gerry Blackford's stove differs in that the flue for venting gas is on the side and an automatic hopper for dispensing coal is on the top. A secondary air supply in a coal stove is necessary for complete combustion.

—NRAES diagram

his stove last week and will keep it stoked all winter. Besides a refill of coal every two days, the only other attention it needs is removal of ash every 12 hours. The stove generates a gallon pailful of ash every other day.

Brookhaven Town requires an installation inspection and certificate for all coal burning stoves, at no cost. Blackford says the certificate is sometimes necessary for fire insurance claims.

So, as we all bundle up for the months ahead, Blackford, Young, Schulman, and other Lab employees are looking forward to a cozy winter, courtesy of their coal stoves.

## Tips For Coal Users

A bulletin put out by the Northeast Regional Agricultural Engineering Service contains some useful information on burning coal.

Anthracite (hard coal) is best for home heaters because it burns well and produces little if any smoke when properly burned. Bituminous (soft coal) creates dust when handled and produces large amounts of smoke and soot when burned slowly. Also, soft coal from some areas has a high sulfur content. Cannel coal should not be burned in a heater or any closed container. It contains volatile materials, which tend to expand when heated, and explosions may occur.

Coal can be stored indoors or outdoors. Just be sure the storage area is cool, 75° F or lower, and free of combustible materials such as paper, wood, rags and leaves. Outside storage areas should be protected from rain and snow.

The kindling temperature of wood is approximately 550° F and coal 660° F, so more heat must be held within the fuel bed to keep a coal fire properly burning. If improperly burned, poisonous carbon monoxide can be formed to create a health problem or death. Check for these signs of a properly maintained coal fire: deep fuel bed of glowing coals and short blue flame just above the fuel bed.

One tip about buying a proper stove: it is easy to burn wood in a coal stove but impractical to burn coal in a wood stove.

To start a coal fire, first ignite a small amount of paper and kindling wood. When the paper and wood are burning briskly, cover with a thin layer of coal. As the coal becomes ignited, gradually add more until the fire bed is built up to about eight inches deep. When adding fresh fuel, pile it towards the back, drawing the top red coals toward the front of the firebox, always leaving some of the glowing coals uncovered. Never use kerosene, gasoline or lighter fluid to start a fire.

## White

(Cont'd)

early days of the Laboratory he served for a time as chairman of the Accelerator Project and was instrumental in the development of the Cosmotron.

White had been on the faculty of Princeton University since 1937, and was appointed Eugene Higgins Professor of Physics in 1949. He was also Director of the Princeton-Pennsylvania Proton Synchrotron Project from 1956 to 1971. He retired from the university in June 1978.

He is survived by his wife, the former Nancy C. Gryzbek; two daughters, Ann Bruner and Margaret White, by his first wife, Elizabeth Higley White who died in 1972; and a stepdaughter, Janice Bush.

## Every Gallon Counts!

The rationing of gas for BNL vehicles has been most effective, according to Staff Services Manager, Bill Webster. He reports that cooperation has been excellent and consumption has been reduced by 16%. "Let's keep it up and maybe we can even do better," he says. To get the most out of every gallon, he stresses that drivers should avoid prolonged idling, rapid acceleration, hard braking and excessive speed.

Concerning speed, he notes that his own car, a 1978 import, when driven at 55 miles an hour plus, was getting 21 miles per gallon. When he reduced his speed to not more than 45 miles an hour, mileage increased to 28 miles per gallon, a not inconsiderable 33% increase.

## CREF Values

January	\$40.90	February	\$39.47
March	41.60	April	41.61
May	40.58	June	42.12
July	42.57	August	44.50
		September	\$44.60

## Stony Brook Events

**Speaker** Philip Solomon, "Giant Interstellar Clouds: The Largest Objects in Our Galaxy," Oct. 19, 8 p.m., 110 Earth and Space Sciences Bldg. Telescope viewing to follow, weather permitting. Information: 246-8373.

**Conference:** "Human Sexuality," Oct. 20, 8:30 a.m., Stony Brook Union. \$25, includes lunch. Information: Women's Health Alliance of Long Island, P.O. Box 569, Smithtown, N.Y. 11787.

**Concert:** Joshua Pierce, pianist, contemporary and romantic music, Oct. 21, 8 p.m., Recital Hall, Fine Arts Center. General admission, \$4; students and senior citizens, \$2. Information: 246-5678.

**Ballet:** Ohio Ballet, Oct. 26, 8 p.m., Main Stage, Fine Arts Center. Tickets from \$4 to \$10.

**Theater:** Warsaw Pantomime, Oct. 27, 8 p.m., Main Stage, Fine Arts Center. Tickets from \$4 to \$10. Reservations: 246-5678.

**Concert:** Isaac Stern, violinist, Oct. 28, 3 p.m., Main Stage, Fine Arts Center. Tickets from \$10 to \$15. Reservations: 246-5678.

**Concert:** Eddie Heywood, jazz pianist, Oct. 29, 8 p.m., Main Stage, Fine Arts Center. Tickets from \$4 to \$10. Reservations: 246-5678.

## Selected Reading

**Am. Sci. 67, September-October 1979**  
Energy flows in the developing world. V. Smil. 522-31

**New Sci. 84, October 4, 1979**  
The sixth winter. D. Orgill and J. Gribbin. 46-8

**U.S. Nucl. Regul. Comm. No. S-11-79**  
Nuclear energy and Three Mile Island. Remarks by V. Gilinsky, Commissioner, U.S. Nucl. Regul. Comm.

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CARL R. THIEN, Public Relations Officer

## "Otherwise Engaged" (Continued)



Dave (Dennis Weygand) is looking at Davina (Bonnie Bittner), who is trying to get the attention of Simon (Tony Fainberg). However, Simon is more concerned with wife Beth's reaction (Carole Lasker). All are characters in "Otherwise Engaged," to be presented by the BERA Theatre Group on November 2, 3, 9 and 10, at Berkner Hall. Curtain time is 8 p.m. Tickets will be available at the Cafeteria at lunchtime, or can be reserved by calling Ext. 2924. Admission - \$3 general, \$2 students or seniors.

—photo by Humphrey

## NY City Marathon

The BNL Roadrunners will send a record contingent of 21 runners to the starting line for the 1979 New York City Marathon on October 21, 1979 at 10:30 a.m. Joining Olympians Bill Rogers, Frank Shorter and Lasse Viren at the Verrazano Bridge will be Peter Adams, Jack Baer, John Beerman, Helen Duggan, John Ferrero, Terry Frei, Dick Fuller, Pat Gilleeny, Dave Judkins, Ted Landry, Bob Liegel, Dennis Nordstrum, Sol Pearlstein, Dave Penoyer, Tom Ruth, Jerry Sbarra, Rich Scheidet, John Schmidt, Jack Scrofani and Wen-Shi Yu. Gus Prince, BNL's veteran marathoner, is fighting off a leg injury but will help send off the group at the start. The race will mark the unveiling of the club's new racing shirts.

This will be the first time a major marathon will be broadcast on local and national television. Coverage will start at 11:00 a.m. The race is a major qualifying event for the U.S. Olympic Marathon Trials set for next May in Buffalo. In addition, many of the international stars present will be preparing for the Olympic Marathon in Moscow. There are a few bus seats still available for the trip. Call Ted, Ext. 2959 for details.

## Bowling

### Blue & Gold League

The Aquanauts are still in first place with Marijane Gillette rolling a 160 and Larry Musso with a 498 series - 630 gross. High game for the men was bowled by Walt Milian with a 234-527 series. Don Stonebridge finished with 499-664 gross. Rich Scheidet had a good night with a 519 series. For the ladies, high game was shared by Lil Cahill and Susan Perri with 180 each. Lil had a 249 gross-465 series-672 total and picked up the 4-10 split. Sue's 180 game rang out to 235 gross-483 series for a total of 648. Peg Taylor did well with a 635 gross series. Barbara Murgatroyd converted the 2-7-10 split.

### Pink League

Congrats to Ellie Kristiansen for her 201 game, the first 200 of the season. Other good games were bowled by Pat Jencius 184/162 for a 502 scratch, Joyce Nicholzen 164/162, Deb Johnson 186, Millie Connelly 181, Helen Keeley 178, Marge Stoeckel 170 and Marie Grahn 163. The Lickety Splits are still in first place but the margin has been narrowed to one point.

### Green League

The Light Source is still in first place, although they lost eleven to the Sandbaggers. C. Neuls had a 207. The Blue Jays were postponed. The Trouble Shooters

## Women's Lockers

Registration for locker rentals in the Women's Gym and Pool Locker Rooms are now being accepted at the BERA Film Service Office in the Cafeteria.

No permanent use of lockers in both locker rooms will be permitted unless registration and payment of the rental fee is made by November 1, 1979. Rentals will be valid until October 31, 1979.

Call the BERA Film Service Office, Ext. 3347, or the Recreation Office, Ext. 2873, for details of rental rules.

## Model Aircraft Club

There will be a meeting at Berkner Hall, Room D on Wednesday, October 24 at 12:00 noon. The purpose of the meeting is nominations of officers for 1980. Also on the agenda will be a bulk purchase of fuel and the possibility of having a group purchase of supplies.

Anyone with questions about the club is invited to attend. For more information contact Bob Larson, Ext. 4656 or Jim Durnan, Ext. 2485.

came up with eight from the Freon Loaders. The sparks are beginning their move as they took eight from the Phoubars. The Old Timers II took seven from the Strangers while the Pinball Wizards were dumped for eleven.

### Red League

Great team bowling by the Sandbaggers (3066 pins) taking 11 from the Light Source. C. Bohnenblusch (204) grossed 664, R. Meier (211) 659 gross and R. Jones 633 gross. The Designers also won 11-0 over the Pinball Wizards. D. Hayslip had 656 gross wood, and J. Ferrero 617.

The 76'ers won 8-3 over the Old Timers. J. Fontana had 642 gross, W. Reams 216, R. Larsen (207) 621 gross and J. Connelly (200) 612 gross. The Strangers took 4 in a match with the Old Timers II.

The Freon Loaders won 3 in a match with the Trouble Shooters. V. Bilms had a 600 gross. This Isa Team bowled unopposed to a postponement.

### Purple & White League

The Brown Bulls moved into first place by one point. The Good Times, Pin Pickers and Portsiders + 1 are all tied for second.

Ed Sperry had high game for the men with a 220. Joyce Pinelli had high series with a 479 and Ed Meier 549. Other good games were Dave Penoyer 216, Ed Meier 213/202, Alma Tomesch 189, Joyce Pinelli 182, Nancy Erickson 170.

## Motorcycle Buffs

A meeting for all those interested in forming an on-site motorcycle club will be held at the Recreation Building Thursday, October 25, at 5:15 p.m.

All enthusiasts are invited; even if you don't own a motorcycle.

## Duplicate Bridge

Results of recent meetings are:

**October 1** - A team consisting of Bharat Bhatt (DEE), Bill Sherry, Bob Whisker (DO) and Bob's wife Pat, finished narrowly ahead of Sachi Dhar (Physics), Dibyendu Bannerjee (Medical), Alfredo Lucio (Accel.) and his wife Mimi by 3 International Match Points in the last of the Monday night games.

**October 4** - The first of the Thursday night games saw newcomers Bob and Judy Mills (S&EP) finish ahead of Bharat Bhatt (DEE) and Dibyendu Bannerjee (Medical) with Bob and Pat Whisker (DO), Bob Lambiase (Accel.) and Paul Picinlo (DEE) tying for third place.

**October 11** - Colin Durston and Debu Majumdar (DNE) edged Dibyendu Bannerjee (Medical) and Sachi Dhar (Physics) with Bharat Bhatt (DEE) and Vishwas Ganu (Biology) third, and Bob and Judy Mills (S&EP) in fourth place.

## Football

### October 4

DEE Generates 28 - Falcons 14

Jerry Shepherd of the DEE Generates had a good game as he passed for four touchdowns.

Sweathogs 13 - Slow Pokes 6

### October 8

Sweathogs 33 - Falcons 7

Roga 19 - DEE Generates 13

Roga quarterback, Lou Snead, hit Ray Jones with a touchdown pass with 4 seconds left in the game to pull out the victory for Roga.

### October 11

Roga 34 - Slow Pokes 20

Sweathogs 18 - DEE Generates 13

### Final League Standings

Roga 8-0

Slow Pokes 4-4

DEE Generates 3-5

Sweathogs 3-5

Falcons 2-6

Post season playoff games started this week.

## Classified Advertisements

### Placement Notices

The Laboratory's placement policy is to select the best-qualified candidate for an available position, with consideration given to candidates in the following order of priority: (1) present employees within the department, with preference to those within the immediate work group; (2) present employees within the Laboratory as a whole; and (3) outside applicants.

The determination of the best-qualified candidate for available positions will be based upon education, experience and other job-related criteria. Such factors will be evaluated and measured against the demonstrable requirements of the available vacancy, as well as the Laboratory's Affirmative Action objectives.

The Laboratory is committed to a policy of Equal Opportunity in its selection and placement of personnel. Its objective is equality of opportunity in employment, training, and promotion without regard to race, color, religion, national origin, sex, age or handicap.

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all nonscientific staff positions; second, to give employees an opportunity to request consideration for themselves through Personnel; and, finally, for general recruiting purposes. Because of the priority preference policy stated above, each listing does not necessarily represent an opportunity for all candidates. As a guide to readers, the listings are grouped according to the anticipated area of recruitment, as indicated below. Except when operational needs require otherwise, positions will remain open for one week following publication date.

For further information regarding a placement listing, contact the Personnel Placement Supervisor, Ext. 2882.

**LABORATORY RECRUITMENT:** Opportunity for present Laboratory employees.

1134. SECRETARIAL POSITION - Requires AAS degree in secretarial science or equivalent experience performing diverse secretarial duties with ability to take shorthand. Will assist Buyer in all aspects of procurement; duties will include organizing, reviewing and expediting verbal and written communications and records. Purchasing Division.

**OPEN RECRUITMENT:** Opportunity for present Laboratory employees and outside applicants.

1135. MEDICAL ASSOCIATE - Requires BS in biology or equivalent with experience in tissue culture and sterile techniques. Specialized training or work experience in cytogenetics is highly desirable. Will work directly with principal investigator involved in mammalian cytogenetics research. Duties will be diversified, including animal tissue culture and optical microscopy. Medical Department.

1136. EXPERIMENTAL MACHINIST - Experienced all-round machinist for non-production work in research and development shop. Project assignments from raw material to final assembly, with demonstrated ability and imagination in all phases of machine shop work. Experience in job print interpretation, layout and machine set up required. Central Shops Division.

### Autos & Auto Supplies

74 DODGE COLT STA WGN - std 4 spd. \$1850 firm. 732-3338.

72 BULTACO-PURSANG - 250cc trail bike, motocross, excel cond, must sell. 325-0233.

68 GMC TRUCK TRANS - 4 spd, \$150; 2 box steel roof racks for carryall, custom made, best offer; pwr brake booster unit, \$25. 928-5031 after 6.

72 TOYOTA P/U TRUCK - good cond, 4 spd, new brakes. \$1800. Danny, 286-3623.

CAR RADIO - 12v Delco AM. \$15. Mac, Ext. 3270.

65 FORD GALAXIE - 4 dr, 6 cyl, very good running cond, good tires + 2 practically new snows w/rims. Asking \$350 or best offer. Noreen, Ext. 2815, 727-9016.

77 DODGE VAN - Maxi, 318 V8, ps/pb, 27,000 orig mi, good cond. Dick, Ext. 4313, 929-4551 after 5:30.

76 KZ900 - cocoa brown, excel cond, low mi. Best offer. Glenn, 286-9364, 9-10 p.m.

69 LINCOLN CONTINENTAL - 4 dr, garaged, good cond. \$900. 585-9816.

76 CHEVY NOVA - white, 4 dr, 225 eng, a/t, good cond. \$2200 firm. Chris, 281-7379 after 6.

75 KAWASAKI KZ400 - 9500 mi, excel cond. Mort. 4749, 286-8448 eves.

15" RIMS - used for Ford. 3/\$15. Ext. 2616, 751-5868 eves.

## Autos and Auto Supplies

- 68 CHEVY K20 P/U - 72-350 motor, 1200 rubber, extras, w/10 1/2' camper, sleeps 5. \$3200. Henry, 758-9825 after 6.
- 66 VW - excel running cond, must sell. \$550. 654-2920.
- TIRES - 2 H78-15 snows, nearly new, \$45; 2-1973 Pinto doors, \$25 ea. Ext. 3284, 744-5652.
- 74 PLYMOUTH FURY III - ps/pb, a/c, runs well, needs minor work. Best offer. Ext. 7725.
- RADIAL TIRES - P165/75R13, 4 Goodyear, 2 Semperit; 5-13" rims to fit 70-74 Toyota Corona. 744-9436 eves.
- 76 CAMARO - 6 cyl, a/t, ps/pb, AM/FM cassette stereo, custom int, excel cond. \$3300. Ext. 2626, 924-4815.
- SNOW TIRES - 878-13 steel belted, excel cond, used 1 season. \$30/pr. John, Ext. 4615, 475-6981.
- 73 T-BIRD - orig owner, excel cond, white int, all pwr, new SB radial tires. \$1800. Ext. 4229.
- 72 PONTIAC S/W - excel cond, many new parts, a/c, ps/pb. \$1500. Steve, Ext. 4297.
- SUNROOF - for a van or truck, brand new. \$80. Gary, Ext. 4220.
- 73 KAWASAKI - 350cc, good cond. Asking \$500. Tom, Ext. 2022.
- 73 BUICK ELECTRA - needs eng job, runs, \$250; snows, L78-15, \$45/pr. Ext. 7750/3104.
- 58 CORVETTE - some custom work, must see. Asking \$4700. 281-0804.
- 71 OPEL 1900 WGN - rebuilt eng, good cond. Dave, Ext. 3403, 285-0703.
- 63 CHEVY - w/rebuilt 69 Chevy 327, asking \$300 firm; alum hi-riser w/Holley 4 bbl, fits sm block Chevy asking \$75 firm. 924-7493.
- TIRES - glass belted E70-14, 10,000 mi, 2/\$30. Hastings, Ext. 4438, 475-4891.
- 72 DODGE COLT PARTS - radiator to rear end. 732-3338.
- FIRESTONE - steel belted tires. \$25 ea. 736-2511.
- 74 VW BUG - 30 mpg, like new, must be seen, AM/FM stereo. Ext. 2311, 325-9580 after 6.
- 2 TIRES - snow, G78x15 Guardsman w/rims, like new. \$25 ea. Jean, 727-2038.
- TIRES - new, used, rims, repairs, Gillette, BF Goodrich, mag wheel service. F. Usack, Ext. 4798 lunch-time.
- 65 BARRACUDA - hatchback, needs batt, good cond, 6 cyl, red. \$200. Bob, 744-5871.
- 76 THUNDERBIRD - excel running cond, snow tires on rims, must sell. 924-0581.
- 2 USED TIRES - 670-15 on Ford rims. Bookless, Ext. 4510.
- RADIAL TIRES - 78HR-15 w/w Pirelli, used 1 yr, near new w/1 GM wheel, \$70/pr; adjustable bumper jack, Sears best, \$10; AM radio & FM converter, Audiovox, \$20. Ext. 2492.
- SHIFTER - Hurst comp plus 4 spd shifter for Muncie. Asking \$50. Bob, Ext. 4672, 929-4753.
- 15" WHEELS - for front w/d Toronado hvy duty. \$15/pr. Bob, Ext. 2819, 289-0357.
- 70 PLYMOUTH STA WGN - Sportabout Satellite, low mi, immac cond, 18 mpg, boat carrying roof, new tires. \$650. Tien, 821-1296.
- 71 CHEVY ENG - 350 ci, excel for rebuilding, many new parts. Asking \$150. Lou, Ext. 4046.
- 73 AMC HORNET SPORTABOUT - high mi, a/c, a/t, good running cond, good tires, reg gas. \$750. 286-8517 after 5:30.
- 73 PONTIAC CATALINA - reb a/t, ps/pb, 96,000 mi, AM/FM. \$750. Klaus, Ext. 3723, Ext. 3187 eves, after Oct 20.
- TIRES - (1) Goodrich belted G78-15, \$8; (1) Uniroyal steel belted radial L78-15, \$8. 331-2779.
- 79 SUZUKI GS550E - 4 cyl, custom paint & seat, rack, 2000 mi, immac, balance of warranty. \$2300. John, Ext. 4082, 727-7198 after 5.
- 8' PICKUP CAP - slide-out, bunks. \$450. H. Stemm, Ext. 3848, 472-0553.
- 74 PONTIAC CATALINA WGN - roof rack, a/t, ps/pb, a/c, pwr tailgate, AM/FM, rear spkrs, new tires, mounted snows, reg gas, excel. \$2150. Bruce, 3362, 924-4097.
- 75 HONDA 360CL - 3200 mi, excel shape, 60 mpg, new crash bar, sissy bar & Die Hard batt. \$700 firm. 473-7023.
- TIRES - (2) L60-14, Indy profile, Micky Thompson, super wide. \$20. Vinnie, Ext. 3664.
- 71 DODGE MONACO - a/t, a/c, ps/pb, good mech cond, clean, needs no work. \$695. Bob, Ext. 4551, 289-2159.
- 69 MUSTANG - 302, ps/pb. Frank, Ext. 2311, 567-5131 after 6.
- 69 TOYOTA - for parts only, rebuilt eng, tires on wheels, etc. R. Larsen, Ext. 3464, 929-4058.
- 72 LEMANS 350 - 58K mi, ps/pb, a/c, AM/FM, runs well, needs body work. Asking \$600. Ext. 3284.
- 70 MONTE CARLO - new 307 eng, new tires, chrome rims, many extras. Asking \$775. 924-3821.
- SNOW TIRES - (2) 6.45-14, used. \$20. Walter, Ext. 3399, 567-2345.
- PREMIUM RADIAL SNOWS - & rims, almost new, BR78-13. \$80/pr. Ext. 3841, 286-9450.
- 2 TRUCK TIRES - 950x16.5 mounted on 8-lug Ford rims, good cond. \$40 ea. Jim, 281-8957.
- 69 MGC ROADSTER, overdrive, wire wheels, radio, 54,000 mi. \$2000. Larry, Ext. 3767 or 744-3744.

## Boats & Marine Supplies

- SAILFISH - fiberglass over mahogany. \$250. Bob, Ext. 2902, 286-0407.
- PRAM - 8' Garvey type, plywood & oak. \$50. Ron, Ext. 4082.
- LEAVING STATE - must sell 1978-24' Winner convertible. Value \$15,000, sell \$10,300 firm. Pat, 589-0421.
- 19' MAKO 1971 - 1978-115 hp Evinrude, compass, depth finder. Asking \$4000. Lois, Ext. 2921.
- 37' COLONIAL SEDAN CRUISER - twin 210's fwc, f/b, int completely redesigned, mint cond. Make offer. Walt M., Ext. 3256, 286-0336.

## Yard Sales

- BELLPORT - Bellport Methodist Church, South Country Rd, Oct 20, 10-5, rain or shine, giant family yard sale. Ext. 4278.
- PORT JEFFERSON - 108 Wilson Drive, Sat only Oct 20, 10 a.m.-4 p.m., 2 families, no previews. Ext. 4210.

## Miscellaneous

- GE ELEC OVEN - gold, 30", \$50; Water Pik Baby Food Processor, \$15; changing table, \$10; GE elec rollers, never used, \$8; red Med hanging lamp, \$10. 281-7763.
- 21" SNAPPER - 3.5 hp w/bag. \$80. 331-2779.
- SUNFLOWER SEEDS - "It's for the birds" - also human love birds, in 2 lb pkg for \$1. 924-3236.
- TAPE DECK - Technics stereo cassette deck w/dolby, deluxe model, many features, excel cond. \$75. 732-5829.
- DOLL HOUSE - w/furn, \$5; child's play-range oven "Suzy Homemaker", \$4. 928-5737 after 1:30.
- WRINKLE REMOVER - GE, \$2; batt-pwrd dice game, \$4; artist's canvases, 3/60¢. Sue, Ext. 4207.
- ZENITH TV - 19" b/w. \$50 or best offer. Ext. 3634/3638.
- CEILING FIXTURE - 5 light din rm, walnut & white. \$20. 281-7844.
- FIREPLACE ENSEMBLE - all brass andirons, poker, brush, shovel & stand, screen & wood bucket. 751-2867.
- MATT & BOX SPRING - hotel/motel twin size firm, excel cond. Set \$75. 744-1917.
- CANNING JARS - 52 qts, 14 pts, gaskets & caps. 4/\$1, \$15/all. 935-3553.
- PIPE CUTTER - 2" max, \$15; adjustable miter box, \$8; CB units, Lafayette Dynacom 5-watt w/charger stands (2 units), \$50. Tom, Ext. 2613, 281-4080.
- FURNITURE - liv rm set, bar, din rm set & queen size bed; all new cond. Ext. 2807, 399-6093.
- 2 AMERICAN HALF FARE COUPONS - best offer. Bud, Ext. 7733, 751-2587.
- VERT SHAFT GAS ENG - 5 hp. \$40. Hank, Ext. 3848, 472-0553.
- STUDIO COUCH - 30"x72", underspring pulls out to sleep 2. 286-9158.
- FRANKLIN STOVE - cast iron, like new. \$200. 475-5371.
- IRONING BOARD - excel cond. \$5. M. Greene, Ext. 4033.
- FIR, SPRUCE TREES - 20"-45", you dig, 2/\$7; sturdy maple table w/4 chairs, painted 1 coat, \$45. 727-1617.
- GREEN GIRL SCOUT SHIFT - w/blouse & hat. \$5. Bill, Ext. 4662.
- REALISTIC MODULETTE - AM/FM stereo 8 trk recorder system, excel cond. \$100. 473-1456.

- LIV RM COUCH - chair + 2 matching chairs. \$100. 289-0687 after 5.
- STOVE - GE, good cond, no reasonable offer refused. Bess, 281-3569.
- ELECTRONIC THERMOMETER - Heathkit digital, untouched, 40% off catalog price. Gar, Ext. 4387.
- BABY CARRIAGE/STROLLER - imported, excel cond, \$38; pine bk shelves, \$25; oval colonial rug, 10'x14', \$15; GE washing machine, \$60. 924-3303.
- MINI-BIKE - needs clutch, brake & trottle cables, excel running cond, \$35; humidifier, variable spd, 16 gal output, used 1 season, \$50. 744-3764.
- MEN'S ROLLER SKATES - size 12, like new. \$20. Ext. 3643.
- TRUMPET & CASE - excel cond, slightly used. Asking \$150 or best offer. 878-1803.
- MAYTAG WASHER - & gas dryer, good working cond. \$125 ea or \$200/set. 732-3073.
- OMEGA WATCH - round white gold ladies, just cleaned w/1 yr jeweler's guarantee. \$85. 472-1585 Mon-Fri.
- AIRO SPACE HEATER - 5000 BTU, fits 6-8" flue; Thermograte 8-tube fireplace insert; \$40 ea. Bob, Ext. 4551, 289-2159.
- HALF-FARE COUPONS - American Airlines (6), \$50 ea; bathrm sink, white, \$10. Marge, Ext. 2470, 588-0677.
- STORM WINDOWS - 3 alum triple track, 35/4x54/4. Free. Jim, Ext. 7985.
- BOY SCOUT UNIFORMS - excel cond, pants 31"W, \$6; shorts 31"W, \$5; shirts 13" neck, \$5 used, 2 new \$6; 71 Apache H/T camper, sleeps 6, garaged, used 3 yrs, stove, sink, ice box, dinette, \$1000. 588-7989.
- GIRL'S METAL REFRIG - \$4; fireplace screen 50x33, \$15; children's skis, \$10; boots, \$8. Jim, Ext. 3372.
- BABY ITEMS - walker, \$5; rocker carrier, \$5; swing, \$5; all like new. Steve, Ext. 2006, 281-4371.

## Deadline Change

**Beginning Friday, November 2, the deadline for submission of classified ads will be changed from Mondays at noon, to Fridays at 4:30 p.m., for inclusion in the following week's Bulletin. The current procedure concerning "space permitting" will still apply. If your ad does not appear, please do not resubmit as it will be published in the subsequent issue.**

## Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, creed or national origin of the applicant.

## For Sale

- ROCKY POINT - Tides ranch, 3 bedrms, L/R, D/R, den w/fp, fin bsmt, gar, 1/2 acre, prvt beach, near shopping center, bank & school, many extras. \$41,000. Ext. 3911, 821-1810.
- BELLPORT - charming older home, prime loc, 4-5 bedrms, 3 baths, den, country kit, lg D/R, ent hall, fp, back staircase, front porch, econ gas heat, 2-car gar, .6 acre, walk to shops, beach, dock, golf, tennis. Mid 50's. Anne, Ext. 3404, 286-3764.
- ROCKY POINT - The Tides, ranch on treed 1/2 acre, newly reinsulated, 3 bedrms, L/R, D/R, den w/fp, eik, oak floors, pine fin full bsmt, gar, patio, prvt beach, assumable 8 1/2% mtg. \$45,900. 821-9072.
- E. PATCHOGUE, SOUTH - mini-estate, 3/4 acre, wooded, fp, eik, w/w, s/s, all appl, 2 bedrms, lg scr porch, fin bsmt. Asking \$46,500. 286-3580.
- MASTIC - Vet's special, \$500 total cash to move in, squeaky clean, 6 rm ranch, treed plot, tons of extras. Ext. 2547, 281-5498.
- MASTIC - for sale or rent, 4 rm bungalow, fully insulated; very low taxes, 80'x100' cyclone fenced, immac cond. Sell \$19,500; rent \$240 + util. 744-8680.
- RIDGE - townhouse/condominium, 2 bedrms, a/c, w/w, 5 appl, 2 1/2 mi from BNL, excel cond. \$2500 over mtg. 924-7963 after 6 or weekends.
- CORAM - Tanglewood Hills, 4 bedrms, 15x20 den w/fp, L/R-D/R w/w, eik, 2 baths, 2-car gar, fenced, 4 appl, 1/10 acre, gas heat, SD #12. Reduced to \$34,000. Ext. 3404, 698-4966.

CENTER MORICHES - waterfront 3 bedrms for sale or rent. 878-4654.

SHOREHAM - 4 bedrm colonial, 2 1/2 baths, full bsmt, gar, 1 fenced acre. \$56,500. Ext. 3040, 744-2821.

## For Rent

- VT CHALET - beautiful furn, stone fp, woodland hiking & SC ski trail, near Bromley, Stratton, Magic ski areas, antiques, rent weekends, weekly & 1/2 season. Ext. 3448, 757-5599.
- PATCHOGUE VILLAGE - 2 bedrm apt, ground floor, fenced yard, prvt ent. Ext. 4421, 289-0012.
- MASTIC - new 3 rm unfurn apt, secluded, prvt ent & terrace. \$325 incl util & cable TV plus water rights. Ext. 3357, 281-7454 after 6.
- SHIRLEY - attractive apt, furn, prvt ent, util incl, excel location, 5 min from Lab, mature business person, security, ref. \$250. 281-8044.
- HOLTSVILLE - furn, 3 bedrms, L/R, kit, 2 1/2 car gar, 3/4 acres. \$425 plus. Ext. 2529, 265-8827.
- E. PATCHOGUE - 2 bedrm apt, prvt ent. \$270/mo. Walt, Ext. 2907/2913, 698-0576.
- WESTHAMPTON BEACH - 4 bedrm cape, att gar, fully furn, immed occupancy till 5/80. \$190/mo + util & security. Ext. 2352, 878-8967 after 6.
- BROOKHAVEN HAMLET - Furnished apartment in private home, 12 min from Lab, 2 rooms, full bath. \$260 per mo w/util. 286-0641.

## Wanted

- CLOSET DOORS - either 2 sliding or 4 louvre. 289-1754.
- SELF-PROPELLED LAWNMOWER - & portable zig-zag sewing machine in good cond. Ext. 3701.
- MOTORCYCLES - bent or broken, any age or cond. Kevin, 281-8031.
- SURPLUS SIDING SHINGLES - white, reasonable please; pick-up cartridge for Garrard record changer, reasonable, for son's player, cheap. W. Sanchez, Ext. 3848, 698-3145.
- HOME - gentle male Shepherd mix needs good home, housebroken, obedient, good w/children & very lovable. Ext. 4304.
- WOMAN'S BICYCLE - 3 spd, good cond. J. Dioguardo, Ext. 4547.
- PERSONS - to go on 2-day shopping spree; Dec 1 to Reading, Pa; Dec 2 to Flemington, NJ. For info call Bea, Ext. 3592.
- RADIAL-ARM SAW - can use frame w/o motor if broken; also used Shopsmith unit. Ext. 4058, 286-0436.
- BASIC SEWING MACHINE INSTRUCTIONS - Jackie, Ext. 4628 after 12.
- WEIGHT SET & BENCH - Ext. 2437, 924-7909 eves.
- HOUSEMATE - for 4 bedrm, 3 bath unfurn house in Coram. \$155 + share util. 928-8379.

## Car Pools

- EXIT 54 LIE - driver needed to complete 5-man car pool. Betty, Ext. 3699.
- ROCKY POINT - to join an existing car pool or form a new one. Jorma, Ext. 7755, 744-2558.
- BELLPORT - 1 or 2 persons to join already existing car pool 8:15-5:15. Ext. 3967.

## Services

- HOUSE SITTING - couple avail for house sitting, Jan thru March, references. Jim, Ext. 2968.
- FIREWOOD - split, seasoned oak, 4'x16'x18". \$110 delivered. 924-4284 after 5:30.
- EXPERT TUTORING - by certified teacher in my home, all elementary subjects, HS math, French, German, \$10/hr. 941-4328.
- WOODWORKING - if it's made of wood I can build it. Reasonable. Tom, 286-0288.
- ROOF LEAKS - basement leaks repaired. Tom, 325-1033.
- SHARPENING SERVICE - chain saws, hand & circular saws. Joe, 732-3286.
- MOTORCYCLE REPAIR & ACCESS - expert work done, access for street & dirt. Ext. 2311.
- TREE & STUMP REMOVAL - lowest prices around. Lou, 281-7273; John, 281-8973.
- HOUSE-SITTING SPECIALIST - now thru April. Wieser, Ext. 3080.
- AUTO REFINISHING - all areas of work performed, discount rates for sm car refinishing. Ext. 2546, 744-4047.
- UPHOLSTERY - Sm chairs, cushions, slipcovers, etc, your fabric. Free estimate after 5:30. Irene, 924-9288.

To accommodate as many employees as possible, only one ad per person, per week, will be accepted.