

Conference Honors Cronkite

In many respects, it was as much a reunion as a conference. Besides sharing a common research interest, the attendees at last week's conference on Hematopoietic Cellular Proliferation had all been associated with the man in whose honor the conference was held — Dr. Eugene Cronkite. The many facets of Cronkite were summed up in these remarks by Medical Department Chairman Donald Borg: "Not only is he a research leader, a skilled and empathetic physician, a retired rear admiral, fiercely dedicated to morning tennis and occasional fishing, but he is also a caring person." (See accompanying story.)

According to Arjun Chanana, chairman of the Local Affairs Committee for the conference, almost all of the 430 people in attendance were either colleagues or students of Cronkite, or had some professional or administrative association with him. Also present were several members of Cronkite's family, including his wife Elizabeth and his daughter Christina, who is a research associate at Milwaukee Medical College.

Scientific sessions were devoted to the four areas of research into hematopoietic cellular proliferation in which Cronkite has been most involved. In a general sense, this research is con-

cerned with the rate at which blood cells form and increase. In each of the four sessions, a different aspect of this research was explored:

- Lymphopoiesis, Immunity and Transplantation focused on the formation of white blood cells and their roles in the body's immune system.
- Hematopoiesis, Bone Marrow Structure and Function was concerned largely with the formation of blood cells.
- Radiation Cellular Biology and Carcinogenesis dealt primarily with the effects of radiation and its behavior as a carcinogen.
- Leukemias and Other Clinical Problems explored blood diseases and treatments.

Cronkite was honored in the welcoming remarks offered by Kanti Rai, Chairman of the Organizing Committee; Laboratory Director Nicholas Samios; Donald Borg and Associate Director Victor Bond. He was honored throughout the conference by session chairmen, banquet speakers and former students who recounted their associations and his achievements.

Also honored at the conference was Cronkite's wife Elizabeth. "She supported us in several ways," said Chanana, recalling his days as one of Cronkite's pupils. "Betty always made sure we had a home away from home.



Eugene Cronkite sits in front of a representative group of visitors from all over the world who attended last week's meeting. —photos by Rosen

My first impression when I came here was that I could always go there and be welcome."

BNL also made students feel welcome, said Claire Shellabarger, a member of the Local Affairs Committee. "All those people wouldn't come back if, in addition to Gene, they hadn't had a good feeling about Brookhaven. At this conference, so many people have rediscovered what a wonderful place, what a special laboratory, this is."

Besides Rai, Bond and Chanana,

the Organizing Committee included Michael Greenberg and Lewis Schiffer. Arland Carsten, Pradeep Chandra and Darrell Joel worked with Chanana and Shellabarger on the Local Affairs Committee. Marie Ann Susa was the Conference Secretary. For the success of the meeting, Chanana singled out Bond, for his "most active help and cooperation," and "the wonderful crew of people at Brookhaven — in Staff Services, Photography & Graphic Arts, all over — who help you so willingly and so well." — Anita Cohen

The Man of the Hour

The majority of those who attended the conference on Hematopoietic Cellular Proliferation on October 6-7 came to honor the man who gave them their first insights and opportunities in medical research. But that man, Eugene Cronkite, reserves his honor for them — the scores of young researchers who have come from all over the world to work with him at Brookhaven. "These bright, talented, hardworking young people made it all possible," he said. "You don't do these things yourself — there's just too much labor involved and it's too complicated. Though we've lent some continuity and guidance, without their input and ideas, nothing would have been accomplished."

And a lot has been accomplished since Cronkite completed his medical residency at Stanford University in 1942 and entered the U.S. Navy. At that time, he said, "I was trained in clinical medicine. I had no education or training in research." By the time he left active duty in 1954, he had become a recognized leader in research related to radiation biology.

The Navy was a pivotal experience for Cronkite, the time when he began the research and formed relationships that would remain central to his career. At the end of WWII, he was named

head of the Hematology Division of the Naval Medical Research Institute, where he collaborated with George Brecher of the National Institutes of Health (NIH) on the development of platelet and granulocyte transfusions. Though developed to combat radiation effects, today both techniques are widely used in clinical medicine to treat ailments from general hemorrhage to leukemia.

From 1950-54, Cronkite also "did a lot of things in conjunction with Dr. Bond." At that time, Victor Bond, now BNL Associate Director, was also a Navy officer. Bond and Cronkite's last Navy-related collaboration came in March 1954, when Cronkite was asked to direct the care of American servicemen and Marshall Islanders exposed to accidental fallout, and Bond was associate director for the program.

The Marshall Islands assignment was Cronkite's last on active duty. "When you're an officer in the Navy, you can get a set of orders and, whammo! Off you go someplace and it disrupts your whole life. So I decided it was time for me to leave the Navy." Still, Cronkite did not leave altogether. In the U.S. Naval Reserve, he was able to maintain his Navy ties, retiring from the Medical Corps in 1974, as a Rear Admiral.

Cronkite's reservist career was based here because at Bikini he had met Shields Warren, first director of Biology and Medicine in the Atomic Energy Commission. "I told Warren casually that I was resigning from the Navy, and he said, 'Well, if you don't have any place else to go, I think they need somebody like you at Brookhaven.' I didn't even know Brookhaven existed at that time.

"I came with a one year appointment. I never intended to stay. But it was such a good place to work. The ambience of Brookhaven, the type of people with whom one is associated, the environment for research are really superb." Cronkite's almost 30-year association with BNL has included a 12-year tenure as chairman of the

Dr. Kanti Rai (left), Chairman and Secretary General of the Organizing Committee for the international conference on Hematopoietic Cellular Proliferation, with the man in whose honor the conference was held, Eugene Cronkite.



Medical Department, from 1967 to 1979.

Shortly after Cronkite came to Brookhaven, so did Bond. "We developed a program in radiation biology and hematology," said Cronkite, "and were reasonably successful because we had, literally, almost total freedom and very good financial support. About the only thing expected of us was productivity."

"Reasonably successful" is a modest assessment. Among the many productive endeavors in which Cronkite was involved at BNL were the development of a program in radiation carcinogenesis, and the initiation of the use of tritiated thymidine in studying human diseases, such as leukemia and multiple melanoma. This radioactive precursor of DNA, developed at BNL, made possible Cronkite's ongoing research into hematopoietic cellular proliferation, because it facilitates studies of the rates of proliferation of blood cells.

Another of Cronkite's achievements came in the early 1960's, with the development of a clinical application of a technique for irradiating blood extracorporeally — outside the living body. Originally developed to explore the function of lymphocytes (their role in immunity was not yet known), Cronkite said, "the method was applied in human disease treatment of chronic leukemia and has given us a deeper insight into the nature of the disease process."

These are but a few of the achievements for which Cronkite has received

international recognition. He has served as president of both the American Society of Hematology and the International Society of Experimental Hematology. He has been elected to both the Association of American Physicians and the National Academy of Sciences. He has received many awards, including the Ludwig Heilmeyer Medal (Germany), the Semmelweis Medal (Hungary) and the Alfred Benzon Award (Denmark). And on December 4, he will deliver the Henry M. Stratton Lecture of the American Society of Hematology at the annual meeting.

While he could easily rest on these laurels, Cronkite's research commitments are as healthy as ever. At present, he is using a NIH grant to study granulocytes in an attempt to uncover the regulatory mechanism that keeps the body's count of these blood cells constant from infancy to death. He is also involved in two studies on leukemogenesis. One study, initiated under the aegis of the Environmental Protection Agency and now sponsored by DOE, is designed to determine whether benzene is an initiator of leukemia; the other, sponsored by the National Cancer Institute, is examining exposure to radiation to determine what combination of time/dose relationship will induce leukemia.

In addition to research, Cronkite is Dean of the Clinical Campus at BNL for SUNY Stony Brook, where he is also a professor of medicine.

— Anita Cohen



(From right) Gene and Betty Cronkite chat with their nephew, Robert Cronkite.

Lab's Future Looks Bright

Lab Director Nicholas Samios called the directorate together in Berkner Hall on Tuesday to speak to an invited audience of first line supervisors about the current state of BNL.

In general, the Lab seems to be in pretty good shape. Even with CBA's possible loss, and the consequent ramifications, Brookhaven's many other programs in the physical and life sciences are alive and healthy.

Samios addressed head-on the question of reductions in staff, and said that if CBA were officially terminated, there might be some layoffs, but certainly "not in the hundreds" as has been rumored. He reported on some good news in the jobs area. The cost reduction measure of lowering the allowable vacation accrual rate from 36 to 31 days, has resulted in a savings of \$2 million this year. This translates into 50 jobs.

Dealing directly with the demise of CBA and what machines and research might fill the gap were Paul Reardon, Associate Director for High Energy Facilities, and Robert Palmer, Associate Director for High Energy Physics.

"To provide not only a recovering but a first-rate high energy physics program," Reardon cited plans to run the AGS for 35 weeks, maybe even 40, and to improve its intensity to 2×10^{13} per pulse. They hope to be accelerating polarized protons to 28 GeV by spring. DOE has encouraged us to develop a plan for transferring heavy ions via a tunnel from the Tandem Van de Graaff to the AGS. Longer

range plans call for a new synchrotron as an injector to the AGS. Studies are under way as to how to adapt CBA magnets to a new machine — a heavy ion collider. Also, to participate in the proposed superconducting super collider, Brookhaven is developing magnets using new materials which should give the Lab a competitive edge, said Reardon. Palmer noted that proposals to do experiments at the AGS had increased, and there was a lot of interesting physics still to be done there.

The Basic Energy Sciences programs are in very good shape, said Samios, standing in for Martin Blume. At the NSLS, Phase II additions have been approved and discussions are already under way on Phase III. A guide hall for the HFBR, which will greatly expand its capability, is expected to become a reality in a few years. And he cited PETT VI as an example of the forefront research being done at the Chemistry Department.

As for biomedical programs, Richard Setlow said the financial situation looks bright for the coming year. He was speaking for Associate Director for Life Sciences, Victor Bond. Biology programs were on firm ground and he announced that they had proposed a Center for Structural Biology which would make use of STEM, the HFBR and the Light Source. Medical programs also looked better than in other years. Increased funding for pulmonary toxicology, in particular, would result in additional recruitment

and expanded use of the research hospital.

The Department of Nuclear Energy anticipates slightly increasing budgets, as well as staff, said Walter Kato, deputy chairman. Two-thirds of their operating budget comes from the Nuclear Regulatory Commission, he said, so they don't have the same fiscal year time frame as the rest of the Lab. Besides their regular programs, he noted some new initiatives: the development of a nuclear power plant analyzer and two reactor concepts which would have space power applications.

The Department of Applied Science has some 200 individual projects funded by some 20 different agencies, said Bernard Manowitz, chairman. Therefore, they always have a cash flow problem at the beginning of the fiscal year. But not this year — the money is coming through early, he said. Their main areas of research are all funded at least as well as last year, and it is expected that funding for the acid rain program will be increased. Even the fossil, conservation and solar programs, which have been cut nationally, receive stable funding at BNL.

DOE is supporting the infrastructure at BNL, and that is encouraging, said Associate Director for Administration, Vincent O'Leary. Out of the \$40 million allocated to Multi General Purpose Facilities in FY 84, Brookhaven is to receive \$9.3 million. This includes funds to advance a \$12 million project to upgrade the water

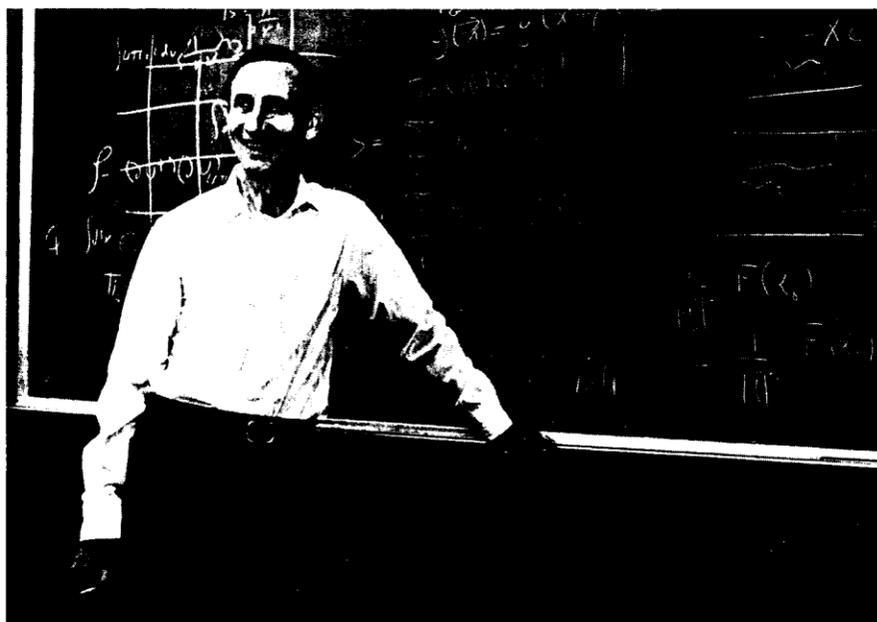
treatment plant, replace a 27-year-old boiler, and extend steam lines. A new fire house (\$1.8 million) is also in the works. FY 85 plans include a cogeneration plant and a central chilled water facility to replace individual air conditioning units. And Brookhaven's continuing emphasis on energy conservation, will reduce the number of BTU's used by 32%, when all ongoing projects are completed.

The Biomedical and Environmental Assessment Division (BEAD), headed by Leonard Hamilton, has been designated a World Health Organization (WHO) collaborating center for the assessment of health and environmental effects of energy systems. The division is already a United Nations environment program center. Hamilton, as director of the collaborating center, will serve as a WHO representative in UN activities with respect to energy problems.

Until now, BEAD has specialized in determining health and environmental effects of energy systems in the United States. As a collaborating center, the division will be gathering information on a world-wide basis. This will lead to a better understanding of U.S. systems, as well as enable the group to broaden the scope of their work, which will help other countries in analyzing their own energy systems.



Bernard Manowitz (second from left), chairman of the Department of Applied Science, discussed the Lab's fossil, solar and conservation programs during the recent visit of Robert Kripowicz (left), Staff Director of the Energy Development and Applications Subcommittee of the House Science and Technology Committee, who was accompanied by (from right) John Ratzel, legal advisor, and Harlan Watson, technical consultant. The Subcommittee is responsible for authorizing legislation and program oversight for research and development in fossil energy, conservation, solar energy, geothermal energy, basic energy sciences, nuclear physics and high energy physics. To learn more about BNL and its programs in the areas under the Subcommittee's jurisdiction, the group toured the CBA, AGS, NSLS, HFBR, PETT VI and the Medical Department.



Freeman Dyson, professor of physics at the Institute for Advanced Study, came to Brookhaven last week and spent the day in conversations with Lab scientists. In the evening, he delivered the 28th AUI Distinguished Lecture, in which he presented an abstract mathematical model on the origin of life. Dyson brought his own model to life by witty comments on its predictions, showing, for instance, that death is probable and resurrection improbable. He pictured the early cell as a droplet of peptides whose inheritance did not depend on DNA, and in which replication of large molecules could occur.

BNL — A Garden for McClintock

Earlier this week, Dr. Barbara McClintock of Cold Spring Harbor Laboratory was awarded the 1983 Nobel Prize for medicine. McClintock, who has been associated with BNL's Biology Department for many years, received the award for her discovery of transposable genetic elements — genes that can move around chromosomes at random, affecting the genetic message. For her studies of these "jumping" genes, McClintock examined corn kernels.

McClintock's work began over 40 years ago. "From the early 1940's to the middle 60's, she worked on the discovery of transposable elements," said Ben Burr of the Biology Department. "It was an entirely new thing and such an incredible breakthrough — so far ahead of its time — people did not believe it for about 20 years." Now that people do believe it, 81-year old McClintock is receiving appropriate recognition, and other researchers, like Burr and his team here, are using her results as a springboard for their own research.

Her first association with BNL was from 1953 to 1972, when she was a guest geneticist. "For many years, she grew her summer crop of corn here," said Burr. McClintock acknowledged that contribution in the Carnegie Institution Yearbook, Volume 66, in January 1968: "Since 1962," she wrote, "the Brookhaven National Laboratory has provided garden space and cultivation facilities for growing my maize plants. I should like to express my appreciation of this courtesy, and of the generous attitude and cooperative attention of those persons at Brookhaven who are responsible for the care and maintenance of plant materials."

Now a consultant in Biology, Harold Smith and his group at BNL achieved the first inter-kingdom fusion between plants and man in 1976, by fusing a human cell with a tobacco plant cell. Looking back, Smith said of his fellow

geneticist, "Barbara grew her corn at BNL in fields near where I grew tobacco. Her car was always already parked in the field when I came in the morning — some said she arrived from Cold Spring Harbor at 6:30 a.m. for the day's work. It was not easy to know where Barbara was in the field because the corn was taller than she."

From 1976-77, McClintock was a research collaborator at BNL, then resumed her guest geneticist status from 1979-80. Burr recalls that she grew corn here in both 1978 and 1979, and "spent a good part of the summer of 1979 living and working on site."

Burr and his colleagues, Frances Burr, Steve Evola and Marjorie Neuberger, are now involved with phenomena associated with the transposable genetic elements discovered by McClintock (their research will be discussed in a future Bulletin article). Not only are they familiar with her work, they are familiar with her, conferring frequently on the status of their research. Knowing both the person and her work, Burr said of McClintock, "Here is a person who is an outstanding scientist — head and shoulders above just about everybody."

Memorial Fund

Friends and associates of Clarke Williams and Warren Winsche would like to establish a lasting memorial to these two men who devoted the major part of their distinguished careers to Brookhaven. This will be in the form of two flowering cherry trees to be planted at the Laboratory, along with a bronze plaque dedicating the trees to their memory. Contributions can be sent to Noreen Sarsfield (Bldg. 197), or Pat Taylor (Bldg. 179). Checks should be made payable to Williams-Winsche Memorial.

BROOKHAVEN BULLETIN

Published weekly for the employees of BROOKHAVEN NATIONAL LABORATORY

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Looking For A Club? Take Your Pick.

When the workday is over, many Lab employees participate in one of the activities sponsored by BERA. So if you're a physicist who's also a camera buff, a secretary with a yen to learn judo, an engineer seeking a golf partner,

or anyone else with a specific interest, you'll probably find other BNL'ers who share your enthusiasm by checking out the groups listed here.

Activity	Description	Contact	Phone
Aerobic Dance Club	Classes held 2-3 times per week.	Lizzy Soenarjati	878-9520
Afro-American Culture Club	Meets regularly to promote cultural awareness and encourage inter-cultural exchange.	McHarrell Thomas	2959
Archery Club	Uses outdoor range year-round; provides free instruction to beginners.	Joseph Bauernfeind	5131
Art Committee	Organizes professional and employees' exhibits.	Eleanor Dahl/ Per Dahl	7125 3500
Astronomy Club	Shares interest in the skies through observation and lectures.	Cesar Sastre	4077
Aviation Club	Meets monthly to promote understanding, safety, enjoyment of flying; all are welcome.	Ronald Dobert	4082
Badminton Club	Plays year-round; holds winter tournaments in gym.	Jack Detweiler	4054
Basketball League	Teams compete once a week in gym, Dec.-Mar.	Stanley Gilbert	4445
Bowling League	Leagues bowl at local alleys, Sept.-April.	Richard Larsen	3810
Camera Club	Meets monthly; uses club's darkroom facilities for black & white and color processing.	Lewis Jacobson	7636
Camping Club	Organizes campouts spring, summer, and fall, at Lab and off-site; holds monthly meetings.	Robert Tallon	4547
Choral Group	Rehearses four-part harmony, particularly in Nov. & Dec. for annual Christmas concert.	John Weeks	2617
Concert Committee	Organizes series of chamber music concerts at Berkner Hall.	Donald Lazarus	4643
Cooking Exchange	Meets alternate Wednesdays, Oct.-May, for international cooking demonstrations.	Dee Polychronakos	744-3578
Cricket Club	Plays at ball fields, spring, summer and fall.	David Cox	3818
Exercise & Tyers Club	Informal exercises during noontime hour. Karate lessons Friday nights.	"Whitey" Caiazza	2913
Fly Tyers Club	Fresh-water fans meet weekly year-round.	John McCafferty	475-1008
French Club	Meets year-round for discussions, lectures, movies, dinner parties.	Michael Levine	4575
Golf League	Teams compete weekly; holds tournaments at local courses; May-August.	Ronald Webster	2845
Ham Radio Club	Uses club's transmitting equipment in Recreation Bldg., meets year round.	George Walzcyk	4243
Handball Club	Plays at noontime on courts at AGS Heliotron Area.	Gerald Bennett	7590
Judo Club	Meets weekly in gym.	Robert Marascia	4672
Microcomputer Club	Meets weekly to discuss growing microcomputer technology.	James Hainfeld	3372
Motorcycle Club	Plans frequent outings; meets monthly.	Erno Ostheimer	8478
Mountain & Canoe Club	Plans year-round trips; meets as necessary.	Patrick Thompson	7635
Nursery School Committee	Operates classes for 3 and 4 year old children of Lab employees, Sept.-June.	Jane Shero	286-0925
Nutrition Study Group	Meets monthly to discuss all aspects of nutrition.	Carol Sokolow	2907
Performing Dance Committee	Organizes annual artistic dance programs featuring renowned artists.	Gail Williams	3338
Quilting Club	Meets twice a month for learning and working.	Bernadette Benz	928-1068
Racquetball Club	Uses Royal and Unique courts.	Richard Horwitz	4134
R/C Model Aircraft Club	Flys radio-controlled model planes during scheduled weekends, April-Oct.	Ken Morton	7772
Rifle & Pistol Club	Holds shoots year-round at BNL range and elsewhere; meets monthly.	Otto Jacobi	4406
Runners Club	Schedules meets spring and fall; holds planning meetings as necessary.	Jeanne Penoyar	2634
Singles Club	Meets year-round to organize a variety of social events.	Charles Watson	3254
Soccer League	Plays Mondays, 5:30 p.m. at ball fields; plays in gym during winter.	Kenneth Batchelor	4674
Softball League	Leagues play from May-Aug. on ball fields.	George Greene	2296
Special Events Committee	Organizes events, including picnics, dinner-theatres, and contemporary entertainment.	Rosalie Piccione	3160
Table Tennis Club	Plays at noontime in Recreation Bldg.	Upendra Rohatgi	2475
Tennis Committee	Sets rules for court use; organizes tournaments.	Eena-Mai Franz	7103
Theater Group	Aims to present two full-scale productions each year.	Karl Swyler	7171
Touch Football League	Plays at ball fields, Sept.-Oct.	Edwin Taylor	7589
Volleyball League	Plays in gym, twice weekly, Nov.-March.	Robert Marascia/ Donald Litcher	4672 4126

Demo Today

Applications engineers from LeCroy Research Systems will be in Berkner Hall lobby from 9:30 a.m. to 4:00 p.m. today to answer technical questions about their products. Among the new products which are being demonstrated are a variety of transient recorders, a video/wageform digitizer, a manual control and display module, and a trigger generator.

WIS Meeting

Nancy M. Tooney, Associate Professor of Chemistry at PINY, Brooklyn, will speak at the next lunch meeting of the BNL Women in Science. Taking on Friday, October 21, in Room B, Berkner Hall, she will discuss the activities of the national organization of American Women in Science. Tooney is editor of this association's newsletter. She also holds a guest appointment in BNL's Biology Department where she collaborates at the Scanning Transmission Electron Microscope. All interested Lab employees are invited to attend. Bring lunch.

Volleyball

Anyone who plans to referee games this season **must** attend the volleyball clinic that will be held at the gym on Monday, October 24 at 5:30 p.m. Dennis Weygand will be giving the clinic and actual experience will be gained.

Also, any players interested in participating in the Wednesday night Open League should please contact Weygand as soon as possible at Ext. 3737.

The new season will begin on November 7.

Cafeteria Menu

Week Ending October 21

Monday, October 17	
Canadian cheese soup	(cup) .65 (bowl) .75
Roasted fresh ham & 1 veg.	1.95
Beef hash & 1 veg.	1.85
Hot Deli: Beef tacos	1.90
Tuesday, October 18	
Chicken vegetable soup	(cup) .65 (bowl) .75
Fillet of fish Florentine & 1 veg.	1.85
Baked lasagna & 1 veg w/ garlic bread	1.95
Hot Deli: Monte Cristo	1.90
Wednesday, October 19	
Lentil soup	(cup) .65 (bowl) .75
Cheddar beef steak & 1 veg.	1.85
Sautéed chicken breasts on rice	2.10
Hot Deli: Chili dogs	1.90
Thursday, October 20	
Minestrone soup	(cup) .65 (bowl) .75
Barbeque spare ribs & 1 veg.	1.95
Old fashioned beef stew on egg noodles	1.95
Hot Deli: Knockwurst & sauerkraut	(bread) 1.85 (roll) 2.00
Friday, October 21	
Manhattan clam chowder	(cup) .65 (bowl) .75
Macaroni & cheese w/1 veg.	1.85
Edith's homestyle chili on rice	1.85
Hot Deli: Breaded fish fillet hero	1.95

Swim Lessons

Registrations are now being accepted at the pool during open hours for an 8-lesson swimming course which is scheduled to begin on Thursday, October 20, at 5:15 p.m. The course is open to on-site employees and their adult dependents, i.e., spouses and children over 18. A fee of \$15 (check payable to BERA) will be due at the time of registration.

Quilting Club

The Quilting Club will meet on Tuesday, October 18 from 9:30 - 11:30 a.m. in the lobby of the Brookhaven Center. "Autumn Leaves" quilt blocks will be made. Please bring your sewing tools and fabric scraps in gold, orange, red, brown or green. For more information call Bernie Benz, 928-1068.

Arrivals & Departures

Arrivals

Luc Cinotti Medical
James C. Higgins, III DNE
Brent H. Nelson Physics
Trevor J. Sears Chemistry

Departures

This list includes all employees who have terminated from the Laboratory, including retirees:
Howard L. Weisberg Accelerator

I.B.E.W. Meeting

Local 2230, I.B.E.W., will hold its regular monthly meeting on Monday, October 24, at 6 p.m. in the Knights of Columbus Hall, Railroad Avenue, 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.

MICOM Meeting

The next meeting of the MICOM Users' Group will be on Wednesday, October 19 at 3 p.m. in conference room 2-160 of Bldg. 510A (Physics). Ruth Stannish, MICOM representative, will explain pagination, headers and footers. For further details, call Ellen Citrolo, Ext. 4486, or Nancy White, Ext. 3793.

Camera Club

The Camera Club will meet on Thursday, October 27, at 5:30 p.m. at the Recreation Bldg. The meeting will feature a lecture and demonstration on mounting, selecting mats and framing of prints. Ms. Hoefman of Kay's Art Dimensions will be the guest lecturer. Members and non-members are encouraged to attend for an interesting and informative meeting.

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. In keeping with the Affirmative Action plan, selection decisions are made without regard to age, race, color, religion, national origin, sex, handicap or veteran status.

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all non-scientific 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.

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: Opportunities for present Laboratory employees.

1948. TECHNICAL POSITION - Requires AAS degree in mechanical technology or its equivalent. Will assist in the operation and maintenance of high capacity pumping equipment, cooling towers, heat exchangers and demineralizers. Experience with power house, marine equipment and water analysis helpful. Accelerator Department. (Reposting of Job No. 1887)

1949. ELECTRICAL ENGINEER - Requires MS degree in electrical engineering or equivalent. Candidates must have a broad background in analog circuit engineering, feedback systems and controls, high-frequency low-level RF circuitry, and HV pulsed systems. Applicants must have a solid record of accomplishments and a sound ability in network analysis, feedback theory and signal treatment. Position involves narrow and broad band electron beam coupled feedback systems for the suppression of beam longitudinal transverse instabilities. National Synchrotron Light Source Department.

OPEN RECRUITMENT: Opportunities for present Laboratory employees and outside applicants.

1950. BIOLOGY ASSOCIATE - Requires BS degree in biology, biochemistry, chemistry or related field. Graduate course work in biochemistry and experience in ultraviolet spectroscopy and nucleic acid photochemistry desirable. Biology Department.

1951. TECHNICAL POSITION - Requires AAS degree in electronics or chemistry and 3 to 5 years experience to work in a pc lab. Background required in print and etch work using dry film technology, n/c drilling of boards, plated through hole technology, electroless plating to include copper, gold and nickel. Multilayer board manufacturing experience: lamination, drilling, plating and etching of inner layers. Instrumentation Division.

Autos & Auto Supplies

72 HILLTOP CAMPER - sleeps 7, stove, ice box, sink, closet, asking \$950. 473-9180 after 4 p.m.

83 PLYMOUTH RELIANT - 2 dr., 4 cyl., auto., excel. cond., \$6,400. JoAnn, Ext. 4120 or 588-8492.

76 VEGA - very clean inside & out, \$600. 744-5009 after 6 p.m.

SLIDE ON CAMPER - for 8' bed pick-up, stove, sink, lights, dinette, cabinets, \$500. 928-8709.

69 VOLVO 145 - wagon, rebuilt engine & transmission, 4 spd., radials, am/fm cassette, \$600. Ext. 4098 or 736-4886.

76 HONDA CIVIC CVCC - 2 dr., hatchback, 50 K mi., on rebuilt engine, new parts, price neg. Debbie, Ext. 3420 or 736-4280 eves.

70 OLDS CUTLASS SUPREME - excel. transportation, with very good gas mi., must see, \$575. Jeff, 351-1017 after 7 p.m.

65 BUICK LESABRE - good cond., needs muffler, owner leaving, \$300 or best offer. Joe, Ext. 4482.

79 RIVIERA - mint, loaded, every access. for 1979 incl. computerized dash board, \$9,000. Ext. 3141.

76 FORD GRAN TORINO - good cond., must sell, \$1,000. Ext. 3641 or 698-8623 after 6 p.m.

VEGA STEEL SLEEVE MOTOR - and automatic trans., both completely rebuilt. 744-9785.

72 FORD PINTO - \$400. Mike, Ext. 4293 or 567-9362.

73 FORD VAN - 302 engine. 732-6647.

72 CAPRI - good running cond., body fair, \$550. Tim, Ext. 3496 or 281-7873 eves.

SOFT TOP - for Chevy Blazer, w/hardware, excel. cond., \$120. Ken, Ext. 2350 or 732-7944.

75 FORD TORINO - station wagon, good cond., auto., a/c, p/s, p/b, l/r. Ext. 3290.

77 BMW 320i - good cond., sunroof, a/c, \$7,500. Ext. 7918 or 286-0898 after 6 p.m.

79 FORD FAIRMONT FUTURA - 4 spd., standard trans., sunroof, 8 track stereo, \$2,500. 399-4122.

74 BEETLE - semi auto., 6,500 mi., Sanyo am/fm cassette, excel. cond. Ext. 2951 or 281-5827.

68 PONTIAC GRAND PRIX - orig. owner, maroon w/black vinyl, restored, excel. body inter., mechanical. 265-5218.

79 HONDA CX500 - custom, water cooled, drive shaft, \$1,000. Chris, Ext. 7626 or 929-6543.

76 VEGA GT - 5 spd., am/fm stereo, p/s, p/b, air, no rust, garaged, clean in & out, \$1,475 firm. 924-5419.

83 YAMAHA SNOW MOBILE - 33 mi. old, Excel III elec. start, \$2,200. Bob, Ext. 4672 or 929-4753.

VW PARTS - new parts at wholesale prices, call for needs. Augie, Ext. 2419 or 289-4211 eves.

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77 BUICK SKYHAWK - V-6, 4-spd., a/c, p/s, am/fm cassette, new steel radials, very good cond. 472-4684 after 7:00 p.m.

81 HONDA MOTORCYCLE - GL500, Silver Wing, fully dressed, mint, \$1,800. Dick, Ext. 3273 or 732-5071.

67 DODGE CORONET - just painted, runs well, \$425. Ext. 4821 or 727-1412.

70 VW PARTS - (2) snow tires, spare, (5) hubcaps, am/fm radio, make offer. Kevin, Ext. 4003 or 473-0961.

CAP - for mini pickup, new \$600, selling for \$300. Ext. 7130 or 929-8323.

79 DATSUN PICKUP - reliable, good cond., std., \$2,900. 878-9331 after 4 p.m.

70 CUTLASS - body poor, excel. eng., trans., needs muffler, \$200. Ext. 3762.

80 FORD FAIRMONT - a/c, p/b, p/s, low mileage, red cloth interior, \$3,400. 821-9280.

FORD ENGINE TRANNY - 1955, V-8, 4 bbl., can demo in car, \$275. Tom, Ext. 4662.

77 MALIBU WAGON - auto., a/c, p/s, p/b, \$1,500, returning to Europe. Harry ten-Brink, Ext. 3080 or 282-3096 eves.

TIRES - (4) Goodyear polysteel w/w, (3) P195/75-5-14, (1) P205/75-R-14, \$10 ea. Ext. 2492.

OFFICIAL SERVICE MANUALS - (2) Bentley, VW Bug & Rabbit, both for \$10. 744-9832.

76 AUDI FOX - excel. mech. cond., \$1,750 or best offer. Ext. 2831 or 288-3216.

76 DODGE ASPEN - 4 dr., 6 cyl., p/s, 68,000 mi., reliable, \$1,700. 744-6804.

82 VW JETTA - mint, sunroof, a/c, stereo, asking \$8,250. 732-8837.

78 DATSUN 280Z - Blaupunkt am/fm stereo cassette, 5 spd., quartz headlamps, \$6,800. Ext. 7141 or 288-3216.

75 DODGE DART - 6 cyl., very good cond., auto, 2 dr., a/c, am/fm 8-track, asking \$1,500. Higuchi, Ext. 3531.

63 FORD GALAXIE 500 - new tires, exhaust system, 289 V-8, manual trans., very good cond. Mike, Ext. 4988.

65 T-BIRD CLASSIC - white, full power, excel. for restoration, runs well, asking \$1,000. 286-0265 eves.

77 HONDA CVCC - 4 spd., rebuilt eng., excel. cond. Ext. 2075.

76 FORD MAVERICK - 4 dr., very good cond., p/s, a/c, am, (4) new tires, 60,000 mi. 751-6765.

75 MERCURY MONTEGO - 4 dr., auto., a/c, p/s, p/b, 100K+, runs well, \$700. Ext. 3712 or 475-7733.

75 CORVETTE - a/c, p/s, p/b, p/w, T-top, tru spokes, am/fm cassette stereo, excel. cond., asking \$9,000. 744-6892 eves.

72 HILLTOP CAMPER - sleeps 7, stove, icebox, sink, asking \$950. 473-9180 after 4 p.m.

Boats & Marine Supplies

12' ALUMINUM BOAT - & trailer w/accessories, good cond., \$300. Ext. 2021.

27' OWENS SEDAN - very good cond., in water, 305 Chevy, CB, DF, Ext. 5383 or 744-2552.

19' REINELL - 1975, 75 HP Chrysler, full canvas, High-Lander trailer, in water until 10/15, \$3,500. 734-5343.

25' CATALINA - 4 sails, 9.9 HP Honda, pop-top, VHF, see while still in water, price goes up in spring. 473-2473.

18' THOMPSON LAPSTRAKE - 1964 with 60 HP Evinrude, trailer, vinyl top, many extras, \$1,500. Ann, Ext. 7611.

26' CABIN CRUISER - 105 HP, FWC Nordberg, fully equip., 8' sailing pram, completely equipped with 3.5 HP outboard and trailer, \$500, relocating, must sell, \$2,500. 286-1192.

19' THUNDERBIRD - all glass, sit down cabin, navy top, 105 HP Chrysler. Ext. 2075.

76 JOHNSON OUTBOARD - 200 HP, excel. cond., \$2,200. Randy, 369-7278 work or 363-5185 home.

24' STAMAS - 1974, cuddly cabin, OMC 225 HP, I.O., VHF, DF, extras, excel., \$9,000. 928-6150 eves.

Yard Sales

YAPHANK - Charles St., Oct. 15&16, collectibles, antiques, pool table, bric-a-brac, boat, car.

PATCHOGUE - 231 N. Prospect Ave., Oct. 15&16.

PATCHOGUE - 101 Jennings Ave., Oct. 14&15, 10-4, misc., collectibles, jewelry, clothing, furniture, housewares.

SOUTH SETAUKET - 4 Auburn Ct., Oct. 14-16. 698-6437 eves.

Miscellaneous

(3) END TABLES - 1 liquor cabinet, best offer; love seat; castro convertible; 28" men's Ross bike, \$75 or best price. Ext. 7009.

STADIUM COAT - Ward Melville, size 11/12, navy w/silver buttons, fingertip 7/9, \$20 ea. 751-2149.

VIC-20 COMPUTER - 3K + 8K expansion, Vic Rabbit, lots of programs, join BNL users group for more. Richie, Ext. 2175 or 734-7342.

NORDICA SKI BOOTS - ladies size 8, \$20; Head downhill skis, with bindings, \$70. Ext. 2705 or 286-1062.

PORTABLE CASSETTE RECORDER - Panasonic Model RQ-4095, built in mic, \$30. Ext. 3876.

KEROSENE HEATER - Corona Sunglow, 24,000 BTU, like new. 473-4948 eves.

PAINTING - Chinese water color, orig., reasonable price, good for X'mas present. 698-6437 eves.

CANON CAMERA - Canonet 28, 35 mm, elect. eye, flash case, strap, \$70. Frank Ferraro, Ext. 4639.

LAWN TRACTOR - 36 in. snow blower, 32 in. mower deck, skid chains, 8 HP, Simplicity, \$550. 473-1967.

ENCYCLOPEDIA BRITANNICA - 1953 edition, very good cond., \$50. Winsche, 286 0517.

OXYGEN "E" TANK - carry case & all controls, used once, cost \$300, sell for \$150. Saxon, 929-4701.

KEROSUN OMNI 105 - 19,500 BTU, 55 gal. drum & stand, all for \$125. Joe, Ext. 4255 or 289-2644.

CRIB - Basset, brand new, never used, needs headboard, \$50. 588-5287.

SOFA - Traditional style, beige, matching burnt orange chair, quality furniture in excel. cond., reasonable. 928-7391.

MET OPERA TICKETS - (2), Forza Del Destino, Nov. 1, front row balcony, \$18/ea. Ext. 4024.

FISHER CABINET STEREO - custom, phono (inop. TV), Provincial walnut, 66", plus 2 external speakers, \$100. 744-9832.

DESK - 3'x6', 5 drawers, formica top, \$50. Ext. 2012 or 7116.

ROOFING - shingle eater, used once, \$20. Dick, Ext. 4329 or 751-6820.

RCA PHONOGRAPH - 3 spd., mahogany console, good cond., \$25. Barbara, Ext. 3437.

LAWN MOWER - 4 HP self-propelled, \$125; portable dishwasher, \$100; new TV antenna, \$50; car roof rack, \$20. 744-9677.

TRAINS - N-gauge, 4'x8' layout, good for X'mas gift for young boy, adult, \$100. Ramona, 928-3088.

MET OPERA TICKETS - (2), Boheme, orchestra, row R, Nov. 5, \$45/ea.; (4), M. Lescaut, balcony, Mar. 26, \$20/ea. Dave, Ext. 2694 or 941-9022.

WHEELBARROW - \$10; soldering iron, \$3; cassette tape recorder, needs belt & microphone, \$5; coffee table with glass top, \$20. Ext. 2733.

STORM WINDOWS - (7), alum., 28"x55" w/screens, (1) 36"x55", (1) 32"x37", (1) 24"x42", \$10/ea. 289-6490.

BICYCLES - (2) ladies 3 spd., Rudge & Schwinn, good cond., \$60/ea. Ext. 3428 or 427-6738 after 7 p.m.

BIKE - women's 3 spd.; Sears exercise bike, \$40/ea. John, Ext. 2172 or 744-4386.

WHEELHORSE TRACTOR - 4' snowplow, chains, weights on wheels, excel. cond., \$250. Dick, Ext. 3499 or 589-9103.

INTERNAL FRAME PACK - Hine, Snowbridge, Model Alpha, \$80. David, 286-2265.

MAPLE SHELF UNIT - to sit on top of desk, \$25. Ext. 4612 or 289-0687.

EXTERIOR DOOR - 30x80, weatherstripped, all hardware, \$30; insulated storm/screen \$20. Ext. 7968 or 286-0082.

ATARI 2600 COMPUTER - incl. 9 cartridges, Ms. Packman, Phoenix, Pitfall, others, all attachments, excel. cond., best offer. 751-2095.

MUMS - Auburn color, field grown, large, 50-100 buds, \$4. Ext. 4612.

STEREO STORAGE UNIT - 1 yr. old, \$20 new, asking \$12. 289-0687.

SKI EQUIPMENT - Lange skis w/Tyrolia bindings; boots, size 8 (L); poles, together or separate. Jane, 473-0961.

WASHER & DRYER - Hot Point, \$10 ea., you pick up. Tom, Ext. 4819.

DISK DRIVES - Tandon, double sided, double density, \$160. Rosalie, Ext. 3160.

LADIES WINTER COAT - new, very cheap. Chandra, 924-0582.

BOYS 3-PC. SUIT - Botany, navy, size 14, \$20. Sue, Ext. 7235 or 399-1736 after 5 p.m.

CHANDELIER - 4 light, lovely, old, \$75 flex. 286-3847.

LEGOS - like new, 17 sets & extras, cost \$2-\$12 per set. Ext. 2265.

19" ZENITH TV - B&W w/table. 698-3856.

MATTRESS & BOXSPRING - frame, queen size, Simmons Beautyrest, super firm, \$90. Ext. 3947 or 475-3431.

FORMICA DINING ROOM SET - 60" table w/2 leafs, (opens to 84"), pads, 4 chairs, china closet, like new, \$350. 727-2167.

LAWN MOWER - self propelled, 21" cut, like new, \$150. Ext. 4220 or 475-4787.

WINDOW AWNING - white w/black trim, 110" wide, 30" projection, 27" drop, aluminum, \$75. 585-1897.

COAL STOVE - Warm Morning, used one season, cost \$400, asking \$175. 821-1525.

BUNK BEDS - Wagon Wheel, \$175; recliner chair, \$20; couch, \$175; ladies ice skates, size 9, \$5. 289-1754.

VIEWERS - many optical & electronic parts, DC motors, gears, lenses, etc, w/power supply including Muffin fans, etc. 929-3325.

MEN'S SKI BOOTS - size 8C, Salomon, SX-90, \$135; ski pants, 34-R, dk. blue, wool/poly., stretch, \$75. Ext. 4727.

PUMPKINS - Best from field of 2000, large, \$3 ea. Tom, Ext. 4084 or 878-1060.

Lost & Found

LOST - pair bifocals, tan case, brown frame. Ext. 2021.

LOST - wallet, in or near cafeteria, Sept. 26. Ext. 2409.

FOUND - Dachshund Club pin in the vicinity of Bldg. 750. Ext. 4433.

Free

BLACK WALNUTS - now falling, Yaphank, pickup. Ext. 4761.

29' OWENS CABIN CRUISER - in water, ice damage. Ext. 4028 or 669-5428.

KITTENS - 8 weeks old, tiger markings, litter box trained. Tony, Ext. 5261.

FIREWOOD - for cutting. 689-9214 after 6 p.m.

GOLDEN RETRIEVER - 6 yrs. old, kids left for college. Midge, 744-6826.

DOG - female, spayed, good & lovable, great w/kids, cannot keep. Ext. 2926.

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

NORTHAMPTON - 4 bdrm. house, 2 baths, large yard, eik, l/r, family room, w/w carpet, utility room, garage, 9% assumable mortgage. Ext. 2334 or 727-1887.

SHOREHAM - 4 bdrm. cape, 2 baths, 2 car garage, beautiful 3/4 acre partly wooded lot. 744-6812 eves.

RIDGE - 1 acre bldg. plot, 100x400, located on a quiet residential street, level ground, fully wooded, \$13,900. 924-3236.

SHOREHAM/WADING RIVER - Hi-ranch, possible m/d, fireplace, coal stove, new furnace, deck, pool, low taxes, by owner \$76,800. 821-1599.

SHOREHAM - spacious modern ranch house on wooded acre, 5 bdrms., 3 baths, large family room w/fireplace, laundry room, patio, beach rights, \$125,000. 744-6804.

SHOREHAM - 4 bdrm. cape, 2 baths, 2 car garage, beautiful 3/4 acre partly wooded lot. 744-6812 eves.

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SHOREHAM - 4 bdrm. cape, 2 baths, 2 car garage, beautiful 3/4 acre partly wooded lot. 744-6812 eves.

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