BROOKHAVEN BULLETIN
Vol. 40 - No. 42 October 24, 1986
BROOKHAVEN NATIONAL LABORATORY

PET Research Reaps Javits Award

To commend their research and development of radiotracers for nuclear medicine and neurosciences, Chemistry Department Chairman Alfred Wolf and several colleagues have been honored with a Javits Neuroscience Investigator Award from the National Institute of Neurological and Communicative Disorders and Stroke (NINCDS), one of the National Institutes of Health.

Created by the U.S. Congress in honor of the late Senator Jacob Javits of New York, who had suffered from a degenerative neurological disorder, the awards are made to investigators "who have a distinguished record of substantial contributions in some field of neurological or communicative sciences and who can be expected to be highly productive over the next seven years."

The Javits Neuroscience Investigatorships are awarded to scientists researching the functioning of the brain and nervous system based on their grant applications. The award to the Chemistry Department is a renewal of a grant that had previously been funded for three and five years, beginning in 1978. The funding in the last two years of the award is unrestricted.

"We are honored to receive this prestigious and substantial award, which recognizes our past efforts and achievements," says Wolf. "It will permit us to develop methods of producing the tracers needed for our PET studies and to expand the use of PET into new areas in biology and medicine."

The collaborators who will be supported in part by the award are Chemist Joanna Fowler, Chemist David Schlyer, Chemist Chyng-Yann Shiue, Associate Chemist Carroll Arnett and Chemistry Associate David Alexoff. In addition, Wolf thanks Robert MacGregor, Jerome Russell, Carol Redvanly and Lois Caligiuri for their contributions in preparing the grant application.

PET, or positron emission transaxial tomography, is a technique used by Wolf and his colleagues to measure the rate of glucose metabolism and other biochemical processes in the brain and other organs. The Chemistry Department's cyclotron-PET group uses the technique to measure regional metabolic processes in normal individuals and in people with such pathologies as schizophrenia, Parkinson's disease, Alzheimer's disease and cere-

(Continued on page 2)

News Flash!

On Monday morning, October 20, oxygen ions generated in the Tandem Van de Graaff accelerator were sent, via the Heavy Ion Transfer Line, to the Alternating Gradient Sychrotron (AGS). And in the AGS, for the first time, the heavy ions were accelerated to the full design energy of 14.6 billion electron volts per nucleon. The intensity of the accelerated oxygen beam was about 10^8 (100,000,000) ions per pulse.

This milestone comes almost two years to the day since ground was broken for the Tandem/AGS Heavy Ion Project, on October 17, 1984. Details of this important achievement will appear in next week's Bulletin.

Yuri Orlov at Berkner Today

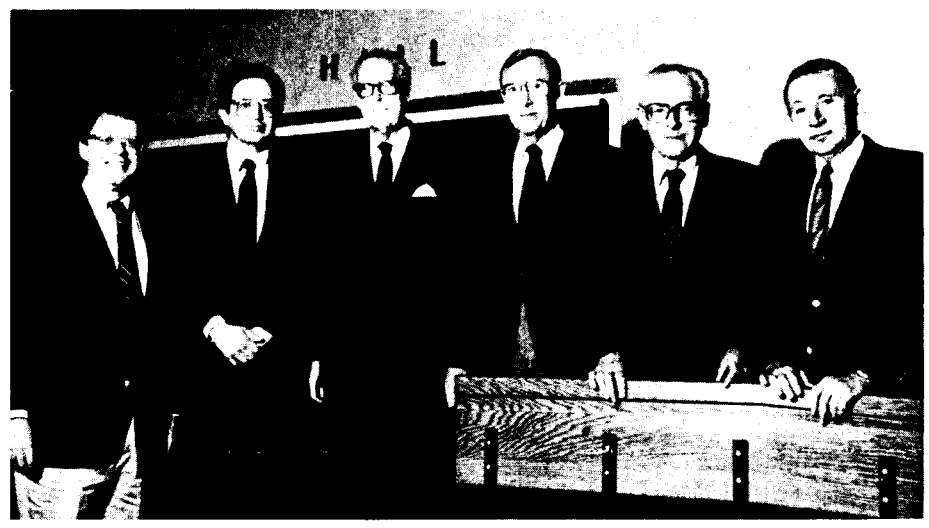
Less than three weeks ago, physicist Yuri Orlov was in exile in Siberia, for his human rights activities. On October 5, he was freed and came to the U.S., as part of the arrangement that led to the release of American journalist Nicholas Daniloff. This afternoon, Yuri Orlov will be at Brookhaven, where he will deliver a Lab-wide physics colloquium in Berkner Hall at 3 p.m. Refreshments will be served before the talk, at 2:30 p.m.

Orlov will speak on "The Complementarity Principle." This fundamental principle of physical theory maintains that particles and waves are two complementary and related aspects of nature.

Senior Physicist Ernest Courant, who first met Orlov at a meeting in 1963, said that the Soviet physicist has made important contributions to accelerator physics. Courant also said that Orlov had spent a large part of his career working on accelerators at the Armenian Institute, as well as at other institutions in the Soviet Union, including in Moscow.

Orlov was a founder of the Moscow Helsinki Watch Group, which monitored Soviet compliance with the human-rights provisions of the international agreement. For his public stance, Orlov was sentenced in 1977 to seven years in a labor camp. When he was released in 1984, he was exiled to Siberia. Earlier this month, the dissident physicist and his wife, Irina, were allowed to leave the U.S.S.R. and come to America.

Upon his arrival at Kennedy International Airport, Orlov said, "I am very glad that I have begun a free life. Now I can freely engage in my scientific life with lots of enthusiasm and freedom. And I can say whatever I want, freely. Now, I can speak freely about my own homeland and how it can develop."



Past and present directors of BNL and NRAO at Berkner Hall: (from left) Paul Vanden Bout, Nicholas Samios, George Vineyard, David Heeschan, Maurice Goldhaber and Morton Roberts.

Trustees Honor Directors

This year marks the 40th anniversary of Associated Universities, Inc. (AUI), which operates Brookhaven National Laboratory (BNL) and the National Radio Astronomy Observatory (NRAO). Both BNL and NRAO are also about to observe anniversaries — their 40th and 30th, respectively. To kick off these celebrations, the AUI Board of Trustees honored past and present directors of BNL and NRAO while they were at BNL October 15-16 for the annual meeting of the Board.

At a dinner on Wednesday evening, plaques of appreciation were given to BNL Directors Nicholas Samios (Director since 1982), George Vineyard (1973-1981) and Maurice Goldhaber (1961-1973); and to NRAO Directors Paul Vanden Bout (Director since 1985), Morton Roberts (1978-1984) and David Heeschan (1962-1978).

On the same evening, a plaque was also given to I.I. Rabi, in recognition of his 40 years of continuous service as an AUI Trustee. In 1946, Rabi, a Nobel laureate and physicist at Columbia University, became one of the five incorporating Trustees of AUI. He was a member of the Board until 1972, when he was elected the Honorary Trustee he remains today.

Three Trustees — Aihud Pevsner, Robert Pound and Richard Zdanis — were given awards for ten years of service to the Board.

The only change to the Board at this meeting was the election of Gordon A. Baym, University of Illinois, who was elected to a three-year term as a Trustee, to fill the vacancy caused by the expiration of the term of Gustav-Adolf Voss, DESY.

Van Hove to Describe An Age-Old Quest

Last week, for the third and final year, Leon Van Hove traveled to BNL in late October. Here, from his temporary headquarters in the Physics Building, the theoretical physicist

Leon Van Hove

from CERN, the European center for particle physics, conducts the business associated with being the first Leland J. Haworth Distinguished Scientist.

This appointment was established by AUI in 1983, to honor the late Laboratory Director, who guided BNL from 1948 until 1961 and who died in 1979. In this position, a scientist of international repute in a field relevant to Laboratory programs spends one to three weeks per year, for three consecutive years, in residence at BNL. While here, the scientist holds scientific discussions with staff members and presents seminars or colloquia, at least one of which is of Lab-wide interest.

Accordingly, the climax of Van Hove's last visit will be the Lab-wide lecture he will give in Berkner Hall on Thursday, October 30, at 3:30 p.m. A reception will follow the lecture at 5 p.m. in the Berkner Hall lobby.

Van Hove's subject will be "What is Matter Made of? An Age-Old Quest," a summary of the status of particle physics today, within a historical framework. He intends to remind his listeners why the ancient Greek philosophers introduced atomic theory, using the term "atom" to refer to the tiniest constituents of matter then imagined. In that sense, Van Hove will show that today's "atoms" are the constituents known as leptons and quarks.

Following this brief, non-technical history, Van Hove will explain what is being done to better understand

(Continued on page 2)

Photos by Peter Horton

AUI President Robert Hughes presents I.I. Rabi with a plaque.

Mort Rosen

(From left) David Alexoff, Carroll Arnett, Joanna Fowler, David Schyer, Alfred Wolf, Carol Redvanly, Chyng-Yann Shiue, Lois Caligiuri and Jerome Russell.

Javits Award (Cont'd)

bral malignancies. A PET study involves the use of BNL's PETT VI scanner and a radioactive tracer, labeled with either fluorine-18 (^{18}F) or carbon-11 (^{11}C), both of which are produced by the Chemistry Department's cyclotrons.

Chemical compounds, including naturally occurring substances, drugs and other biomolecules, have been labeled with ^{18}F and ^{11}C, and some of these are used in PET studies of the human brain and heart. For instance, in a PET measurement of regional brain glucose metabolism, PETT VI measures the radiation emitted by an ^{18}F- or ^{11}C-labeled sugar analog, which has been injected and taken up by the brain. A computer translates the data into color pictures, in which the different colors represent different rates of glucose metabolism in different regions of the brain.

As a result of the past seven years of NINCDS funding, Wolf and his colleagues can list a number significant achievements. These include: the development of medical cyclotron targets that produce high yields of ^{18}F; the accomplishment of new reactions to label compounds with ^{18}F; the synthesis of a new tracer now used in clinical studies of human cerebral malignancy; the use of "suicide" inhibitors to map the activity of monoamine oxidase (MAO), an enzyme responsible for regulating the concentration of neurotransmitters in the brain; the development of compounds used to probe brain-receptor occupancy; and the automation of the production of some routinely used radiotracers.

Over the next seven years, Wolf will use the grant to expand on this work. "The Javits award supports research not otherwise funded and enables us to extend our work into new areas," says Wolf.

One of the areas that will be addressed in more detail over the next seven years is the development of ^{18}F for PET studies. Because it has a 110-minute half-life, ^{18}F is a particularly useful radionuclide. The energy of its positron is the smallest of the four commonly used radionuclides. Thus it will allow a resolution of 1-2 millimeters, the maximum possible with a PET scanner, and its distribution can be measured over several hours after its administration.

In addition, the half-life of ^{18}F permits it to be shipped from the cyclotron where it is produced to clinical PET facilities within a 2-3 hour radius. Therefore, research that leads to improvement of ^{18}F yields from a medical cyclotron is expected to have significant impact. As well, the development of new methods for labeling organic molecules with the isotope and the understanding of biochemical interactions of these tracers with the body will be important for further research with PET.

Since many medical centers that wish to use PET in clinical research neither have access to a medical cyclotron nor the staff necessary to produce radiotracers themselves, automated production of PET tracers is necessary. "In order to transfer this technology from basic research laboratories to clinical medical centers, we want to develop a 'black box' that can routinely produce positron-emitter radiotracers without the need for resident experts," explains Wolf.

Suicide enzyme-inhibitors are compounds that attach themselves permanently to catalytic proteins, thus preventing them from mediating any biochemical reactions within the body. The Chemistry group has successfully labeled these enzyme inactivators with positron emitters, so they can be used to trace localized enzyme concentrations *in vivo*. The cyclotron-PET group wishes to extend this work, which was begun with MAO inhibitors, to look at the activity of other enzymes, such as those produced by malignant tumors. In this way, PET could possibly be used as a diagnostic tool in the management of cancer patients.

"The value of PET is that it can provide quantitative information about the regional concentration of labeled tracers and drugs," Wolf says. "Given appropriate biochemical models, these tracer concentrations can then be used to provide quantitative information about regional metabolism and other physiological processes. Ten years ago, PET research began growing in the biomedical field. Today, as this research continues, the results from this work are being translated into clinical procedures for epilepsy and ischemic heart disease, and for the evaluation of neuroleptics used in treating schizophrenia. PET is becoming a major tool to probe the regional dynamics of biochemical changes in humans." — Marsha Belford

Alfred Wolf to Be ANS Speaker

Alfred Wolf, Chairman of the Chemistry Department, will be the guest speaker at the next dinner meeting of the Long Island Section of the American Nuclear Society. In his talk on "Images of the Brain," Wolf will discuss the use of positron-emitting radiopharmaceuticals as probes for dynamic physiological and biochemical processes in living tissue. His talk will combine nuclear technology with medical research and should be of interest to an audience with a wide range of interests.

The meeting will be held on Wednesday, October 29, at the Bavarian Inn, 422 Smithtown Road, Lake Ronkonkoma: cocktails 6 p.m., buffet dinner 7 p.m., speaker 8 p.m. The dinner costs $14 per person for L.I. Section members and spouses, $16 per person for other attendees. Everyone is welcome. For reservations, call April Donegain, Ext. 4425.

Don't forget to set your clocks back this weekend. Daylight Saving Time ends Sunday, October 26, at 2 a.m.

Van Hove (Cont'd)

quarks and leptons. He will also comment on why so many theorists are trying to find a unifying framework to encompass all the known particle interactions.

Van Hove will also give a Physics Colloquium in the Seminar Room of Bldg. 510A, on Tuesday, October 28, at 3:30 p.m., following a 3 p.m. tea. The subject of this talk, "Theory Versus Experiment in the Quark Matter Search," was chosen in relation to the programs beginning in heavy ion collisions, at BNL's Alternating Gradient Synchroton (AGS) and at CERN's Super Proton Synchrotron (SPS). Both machines are about to begin their heavy ion experimentation.

Though the SPS can reach about 13 times the energy of the AGS, the AGS will aim to accelerate heavier ions, up to and including sulfur and later, with a booster, up to gold. Van Hove says, "It is extremely useful that the machines are complementary. For example, one prominent question to be covered in the first round of experiments is stopping power — to what degree the protons and neutrons in the beam nuclei are going to slow down and dissipate their energy as they pass through the target nuclei?

"Theoretical attempts to establish stopping power have often been in conflict," continues Van Hove. "But comparisons of data from accelerators of such different energies may resolve the question. I find it very nice that my three years here have been in this preparation phase, and now the hour of truth is approaching."

In addition to these lectures, Van Hove's agenda included a seminar he gave earlier this week on "New Hints From Multiplicity Distributions in High Energy Collisions of Hadrons and Leptons." In this talk, he reported new results of the last two years. "What has emerged," he says, "seems to show a new empirical law with wide validity, and a lot of work is now going on to understand and interpret it."

Summing up his experience as the Lab's first Haworth Distinguished Scientist, Van Hove says, "The most appealing feature of such a program is interacting with people. The stay is long enough and the lecturing load is light enough to leave plenty of informal discussion time." Such discussions and tours of facilities and experiments will round out Van Hove's two weeks here.

He will return to a busy schedule in Europe. At CERN since 1960, he served as the laboratory's research director general for five years before returning to the theoretical physics division in 1981. Since 1984, Van Hove has been chairman of the Science Program Committee of the European Space Agency, which decides on European space science missions. One such mission was the Giotto satellite, which encountered Halley's Comet last March. And since 1985, he has also been chairman of a new Scientific Counsel of the European Community, looking at the activities of four laboratories that focus primarily on applied science.

Minority Vendor Receives BNL Award

Peter Horton

Minority Enterprise Development Week offered BNL the perfect opportunity to present its 1986 Minority Vendor of the Year Award to Tools for Industry Corporation of Lake Grove on October 8. This award is presented yearly to a minority vendor who has provided BNL with exceptional service and products. Presenting the award to Fernando Ortiz, President of Tools for Industry Corp. (T/I), is Parke Rohrer, BNL Associate Director. Also present were: (standing, from left) William Birkholz, BNL Senior Buyer; D. J. Greco, Assistant to the Small Business Program at BNL; Chris Carcano, T/I; Timothy Drawbridge, DOE Brookhaven Area Office (BAO); Earl Blanton, Assistant to the Director for Affirmative Action, BNL; Gregory Ogeka, DOE/BAO; (seated, from left) Migdalia Ortiz, Vice President, T/I; Richard Chester, BNL's Small and Small Disadvantaged Business Liaison Officer; James Desmond, BNL Business Manager; Fernando Ortiz; and Parke Rohrer.

Ideas on Energy

Solar energy — specifically, thin-film amorphous silicon photovoltaic (PV) technology — will be the main subject under discussion at tomorrow's meeting of the Long Island Energy & Environmental Association. The meeting, which is open to the public, will be held in Berkner Hall, beginning at 11 a.m.

Speaking on the subject of "Thin-Film Photovoltaics" will be Pandelis Velissaropoulos, of the Chronar Corporation, which manufactures a variety of PV consumer products. In addition to describing the PV technology, he will address the economics of home-energy systems. Following the talk, the group will take a brief tour of the Hydrogen Technology Evaluation Center in the Department of Applied Science.

For more information, or to register for this free program, call Victor Gutierrez, Ext. 2395.

CREF Values

October	77.12	November	82.20
December	85.78	January	86.50
February	92.83	March	98.20
April	98.28	May	101.66
June	103.22	July	98.16
August	105.20		

September $97.72

In Memoriam

A memorial service for Mingyang Ernest Chen, who died on October 13, will be held on Saturday, October 25, at 3 p.m., at the Taiwan Center, 137-44 Northern Blvd., Flushing. Visitation will be held before the service, from 10 a.m. to 2 p.m., at the Temple Memorial Chapel, 134-35 Northern Blvd., Flushing. Donations to benefit Chen's family may be made by sending a check, payable to FAPA, to the Formosa Association for Public Affairs, 87-14 Elmhurst Ave., Elmhurst, NY 11373.

Mort Rosen

Watching the space between 0 and $75,000 on the United Way barometer of donations are (from left) Louis Di Carlo, Eddie Rosado, John Blydenburgh, Jim Amandola, Juan Alvarez and Harold Bolling of the Supply & Materiel Division — none of whom will shave until $75,000 is reached!

$75,000 or . . . Beard!

Six well-groomed chins with not a shaggy hair — that's the picture right now of Louis Di Carlo of the Supply & Materiel Division and some other enthusiastic United Way supporters at the start of this year's campaign. "But wait a few weeks, then look again," says Di Carlo. "Our goal this year for United Way is $75,000. And we've vowed not to shave till we reach that point. We may have some fairly long stubble before then!"

The enthusiasm and joking spirit galvanizing BNL's United Way fundraising is backed by deep commitment from Di Carlo, who heads this year's drive. Di Carlo has long been involved with finding "good homes" for materials for which the Lab has no further use. He lets people know the official procedures to get the necessary Department of Energy approval so that, for example, old electronics equipment may be used for therapy instead of being thrown away. Unlike DiCarlo, however, few people are able to do this.

Donations are the answer.

"Once people know just a few of the programs that United Way supports, they realize their own commitment to these causes," says Di Carlo. United Way aids Long Island centers that help people with hearing and speech disorders or cerebral palsy, offer self-help community services, find foster grandparents, shelter abused women, develop skills for the unemployed, deal with the drug addiction of a new born baby — and that's just beginning the list. Volunteers help United Way keep its costs down, so that about 85 cents of each dollar contributed goes directly to aid. If you can't volunteer, even a small weekly donation, so simple to sign for at BNL, makes a great difference.

The familiar envelopes asking for any-sized contributions will soon be mailed to every employee. Representatives from different departments and divisions are giving up time to persuade busy people to think about some of the causes that get so much support from United Way.

One busy person is Richard Setlow, Associate Director for Life Sciences, a long-time supporter of the special services provided by United Way. He points out, "With the decrease in federal funding for such services, the United Way needs whatever help the more fortunate of us can give. Even relatively small amounts given on a regular basis can make the difference between failure and success in the United Way Drive. It is hard to think of a more comprehensive and embracing cause than that under the United Way Umbrella."

Please help.

All-Beethoven Concert Next Week

Music lovers will be treated to an all-Beethoven concert, presented by the Concord String Quartet on Tuesday, October 28, beginning at 8:30 p.m., in Berkner Hall.

Hailed as one of the best American string quartets, the Concord celebrates its 15th anniversary this season. The ensemble is internationally renowned for its performances of the standard string quartet literature, as well as for the world premieres of over 70 new works.

Beginning with this concert and in additional concerts over the next two years, the Concord will play the entire cycle of 16 Beethoven string quartets in performances at BNL. On the October 28 program will be the following quartets: F Major, Op. 18, No. 1; C Minor, Op. 18, No. 4; and E-Flat Major, Op. 127.

Tickets will be sold at the door the night of the performance. Prices are $9 for general admission, $6 for students and those over age 65, and $5 for those under 18.

Concord String Quartet

A Chance to Learn Defensive Driving

Most drivers would like to reduce their insurance premiums. Now, drivers who work at BNL have an opportunity to do just that — by taking the National Safety Council's Defensive Driving Course (DDC), when it is offered on site on Saturday, November 15. As a result of a suggestion by Ernest Jochen, a senior standards inspector in Central Shops, a certified instructor will present the DDC in Room B, Berkner Hall, from 9 a.m. to 3 p.m. (includes lunch break). The course fee is $35 for each attendee. Participation is limited to 40 employees.

The program is being organized by Frank Marotta, Safety & Environmental Protection Division, who explained that the DDC can be valuable to New York drivers in three ways:

- **Insurance discount.** Those who complete the DDC are eligible for a minimum 10% discount in motor vehicle *liability* insurance premiums each year, for three years. With this discount, the course usually pays for itself in about a year. The discount applies to all vehicles for which the participant is the principal operator, so if more than one person is named as a principal operator on the same policy, all those named must take the course for the discount to affect the entire liability premium.
- **Point reduction.** Three points will be deducted automatically from the total on the driving record of a driver who has incurred violations during the 18-month period prior to taking the DDC. However, the point reduction cannot be credited against future violations.
- **Sharpen driving skills.** With the help of modern, multimedia techniques, the DDC offers a new approach to learning accident prevention skills. Marotta, who is familiar with these techniques, says, "If you practice what you learn, you'll be a better driver. It really works." Each participant receives a course guide for use in class and to keep for future reference.

To sign up for the DDC, send a check for $35, made out to "All-Suffolk Auto School," to Frank Marotta, Bldg. 535A. For more information, call him on Ext. 4273.

Urbain Huchet, who painted this scene, is one of the artists who may be featured in the Art Expo and Auction, sponsored by Brookhaven Women in Science (WIS), on Saturday, November 1, in Berkner Hall. Prices at the auction, will start at $25 (credit cards accepted). A preview of the artwork will begin at 7:30 p.m., and the auction is scheduled for 8:30 p.m. This event is a fundraiser for WIS's Renate W. Chasman Scholarship Fund. It is open to the public, and the $5 admission is a tax-deductible contribution to the scholarship fund. Advance tickets can be purchased from:

Name	*Bldg.*	*Ext.*	*Name*	*Bldg.*	*Ext.*
			Harriet Martin	477A	3487
Pat Aud	120	7560		911C	4853
Penny Baggett	902B	5154	Flo O'Brien	475	4953
Maryann Castrogivanni	535A	3898	Mary Phillips	801	3289
Alyce Dayly	197D	5203	Vinnie Racaniello	725A	7336
Eena- Mai Franz	703	7103	Sharon Spark	515	4111
Rae Greenberg	510A	3743	Pat Webster	911A	4628
Louise Hanson	815	7709	Bonnie Wesolowski	555A	4301
Maggie Marsch	426	3275	Gail Williams	185	3338

Nursery School Art-In

On Wednesday, October 29, the Nursery School will sponsor an Art-In, at the Recreation Bldg., from 9 to 11 a.m. This morning of activities is for 2½ through 4-year-old children and their parents, who may be interested in visiting our school. The Art-In will provide an opportunity to experience the daily school routine and to meet the teachers. Openings are available in the Nursery School for this year. Enrollment forms will be provided at this event.

Swim Club

A long, steady distance workout will be swum at the next meeting of the Swim Club, on Thursday, October 30, at 5:15 p.m. at the BNL pool. For more information, call Marsha Belford, Ext. 5053, or Peter Heotis, Ext. 2304.

IBEW Meeting

Local 2230, IBEW, will hold its regular monthly meeting on October 27, at 6 p.m., in the Knights of Columbus Hall, Railroad Avenue, Patchogue. On the agenda will be regular business, committee reports and the president's report.

Arrivals & Departures

Arrivals

Geir M. Haarberg ..... DAS
Yuqun Hong..... Biology
Thomas V. Johnson ..... Staff Serv.
Patricia A. Morris ..... Biology

Departures

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

John T. Campbell ..... Sfgrds. & Sec.
Joung Soo Kim..... DAS
Karl T. VonBock ..... DAS

BROOKHAVEN BULLETIN

Published weekly
for the employees of
BROOKHAVEN NATIONAL LABORATORY

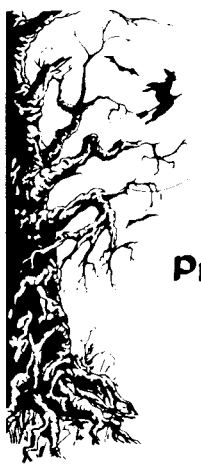
ANITA COHEN, Editor
MARSHA BELFORD, Senior Reporter
LIZ SEUBERT, Reporter

35 BROOKHAVEN AVE., UPTON, N.Y. 11973
Telephone (516)282-2345

Afro-American Culture Club

Annual Halloween Costume Party

Friday, October 31, 1986
Recreation Hall
9 p.m. - 2 a.m.



Tickets: $3 in advance
$4 at the door

21 and over please

Prize for most original costume
Dance Contest
All are welcome.

For ticket information call:

	Ext.
Barbara Simpson	7009
Bruce Penn	7213
Bettie Sylvester	7711
April Donegain	4425
Fran Ligon	3709

The Afro-American Culture Club is a BERA-sponsored organization.

Bowling

Red/Green League

High games were bowled by J. Connelly 258, W. Kristiansen 224, E. Meier 216, J. Morris 212, N. Combatti 212, E. Sperry IV 204, C. Bohnenblusch 203, R. Adams 210.

White League

Ed Sperry IV rolled a 213/212/622 scratch series, Bob Jones 201, Ruth Sheehan 189, Sharon Moore 184, Donna Riendeau 175.

Purple League

Ben Belligan bowled a 212, Gene Hassell 207, Paul Callegari 200, Lee Barberich 181.

Cafeteria Menu

Week of October 27

Monday, October 27

Cream of broccoli soup	(cup)	.70
	(bowl)	.90
Sautéed beef tips w/noodles		2.60
Beef chimichangas w/hot sauce & 1 veg.		2.50
Egg salad & cottage cheese plate (lite-weight)		2.25
Hot deli: French toasted club		2.45

Tuesday, October 28

Southern beef vegetable soup	(cup)	.70
	(bowl)	.90
Roulade of veal w/sausage stuffing & 1 veg.		2.85
Stuffed peppers w/1 veg.		2.60
Quiche Lorraine w/1 steamed veg. (lite-weight)		2.65
Hot deli: Roast beef	(bread)	2.45
	(roll)	2.60

Wednesday, October 29

Cream of chunky vegetable soup	(cup)	.70
	(bowl)	.90
Herbed linguini w/hot garlic bread		2.60
Braised liver & onions w/1 veg. (lite-weight)		2.60
Hot deli: Fresh ham	(bread)	2.45
	(roll)	2.60

Thursday, October 30

Beef barley soup	(cup)	.70
	(bowl)	.90
Chicken livers w/gravy & 1 veg. (lite-weight)		2.50
Meat loaf w/mushroom gravy & 1 veg.		2.50
Hot deli: Polish sausage melt		2.55

Friday, October 31
Happy Halloween

Witches' Brew	(cup)	.70
	(bowl)	.90
Spook-ghetti w/meatballs		2.55
Scarecrow magic stew w/biscuit		2.55
Hot deli: Fishwitch sandwich		2.45
Top your own dessert:		.85
Pumpkin pie or		
Boo-berry pie or		
Devil's food cake		

Help Wanted At Cafeteria

Saga Foods, which runs the cafeteria, needs several new employees to fill utility and general positions. Saga Foods offers excellent benefits and is an equal opportunity employer. For more information, call Cafeteria Manager Roy Johannesen, Ext. 3541.

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 and/or appropriate bargaining unit, 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 Employment Manager, Ext. 2882.

THE VACANCIES LISTED BELOW HAVE BEEN EXEMPTED BY THE DIRECTOR'S OFFICE FROM THE CURRENT FREEZE ON OPEN REQUISITIONS.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees.

2486. PATROL OFFICERS (Future positions) - Requires previous police, military or security experience and/or a strong desire to be involved in BNL police work. Requires the ability to obtain/maintain "Q" clearance and the ability to pass an initial and annual comprehensive physical fitness exam. Safeguards and Security Division. For further information call Nancy Sobrito, Ext. 7996.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside applicants.

2487. ENGINEERING POSITION - Requires a bachelor's degree in civil or architectural engineering, a PE license and 10 to 15 years' of broad experience in structural design for erection and modification of buildings and structures. Under broad assignment will be responsible for carrying out structural analysis and design, including the preparation of preliminary sketches, working drawings, specification and cost estimates associated with building construction projects. Plant Engineering Division.

2488. TRAINING SPECIALIST - Requires a BS degree in a relevant field or extensive highly pertinent technical experience to perform training and other related duties for the BNL Police Group. Should have knowledge of military tactics, police procedures and DOE requirements. Must be a qualified or qualifiable weapons instructor. The ability to obtain/maintain a "Q" clearance, as well as the ability to pass an initial and annual physical fitness exam is mandatory. Safeguards and Security Division.

Autos & Auto Supplies

77 VIKING POP-UP - sleeps 8, good cond., two tables, stove, refrig., $1,200. Dan, Ext. 4987 or 698-7322.

81 TOYOTA STARLET - htchbck., 2 dr., am/fm cass., 5 spd., less than 50k mi., excel., $2,800. John, Ext. 3292 or 475-4370.

86 WINNEBAGO MOTOR HOME - 31', low mileage, must see. Bob, Ext. 4965 or 289-1834.

76 VOLVO - 265-wagon, 78k mi., body & engine excel. cond., a/t, p/s, p/b, a/c, orig. owner, garaged, asking $2,875. Ralph, Ext. 2368 or 928-6654.

83 NISSAN STANZA - 4 dr., 5 spd., 38k mi., extras, excel. cond., $4,800. 744-4611 after 6 p.m.

65 MUSTANG - hardtop, low mileage, excel. in/out, a/t, orig. owner, $5,200. 929-4701.

76 WILDERNESS CAMPER - 18', fully self-contained, excel., $3,500. 874-3796.

78 DODGE ASPEN SW - 6 cyl., a/t, p/s, p/b, perfect cond. 751-7408 after 3 p.m.

80 200 SX - a/c, 5 spd., htchbk., sunroof, 76k mi., am/fm, p/s, p/b, runs well, $2,800. neg. 654-0830.

76 SAAB 99GL - orig. owner, 86k mi., excel. cond., $1,950. 751-0453.

84 MERCURY MARQUIS - 52k mi., p/w, p/l, p/seats, tilt wheel, cruise, p/s, p/b, am/fm, a/c, mint cond., $5,650. Ext. 5400 or 924-4074.

81 CHEVETTE - htchbck., 4 cyl., a/t, clean, good cond., $1,200. Jim Pontieri, 475-9131 after 5 p.m.

85 TRANS AM - hatch roof, a/c, p/w, p/l, a/t w/overdrive, am/fm tape, tilt wheel, 48/50,000 warranty, 7500 mi., mint, $12,300. John, Ext. 2836 or 929-4450.

80 OLDS TORONADO - red, V8, diesel, all power, orig. owner, clean. $2,800. neg. Ext. 3794.

67 PLYMOUTH - 80k mi., good cond., $250. 878-6526.

79 OLDS CUTLASS SUPREME - 2 dr., a/t, a/c, p/s, p/b, am/fm cass., pastel green, 62k mi., good cond. in/out, $2,300. Herman, Ext. 3170.

79 TOYOTA COROLLA - 2 dr., 5 spd., some body rust, runs well, $1,000. 472-1735.

82 DODGE SPORTMANS - royal ram van, V8, a/t, a/c, p/s, p/b, excel. cond., extras. 758-6069.

82 FORD EXP - no reasonable offer refused. 567-6226 eves.

Boats & Marine Supplies

19' RENKEN BOWRIDER - 120 h.p. Volvo I/O (150 hrs.) full canvas, trailer, $3,900. Ron, Ext. 7533 or 286-0353.

17' PLYWOOD - good cond., 12 yrs. old, 35 h.p. Evinrude, runs well, $350. 924-5533.

BATTERIES - 238 Mako, twin 115 ev. dusk, B.T.T.; C.B.; VHF, Loran, loaded, $18,500. Richie, Ext. 3815 or 924-5329.

Miscellaneous

TRESTLE TABLE - w/6 chairs, 2 leaves, Formica top, pine; snack tray, chair, (2) folding bed frames. Gary, Ext. 2350 or 567-9617 after 5 p.m.

ANDERSEN WINDOW - double unit, 67¼x49¼, narrow line, complete, 1 yr. old, $200. Carl, 928-7745.

BICYCLE - adult 3-wheel, $75. neg. Oscar, 924-3449.

LAWN MOWER - Black & Decker electric, $10. Jim, Ext. 2432.

SEARS BAGGER - shredder bagger, leaf & twig, 5 h.p., moderate use, runs well, $75. Joe, Ext. 3464 or 281-7683.

JUNIOR WEIGHTS - play kitchen w/dishes, $10/each; boy's shirts, new, size 8-12; cowboy boots, size 3. Cheryl, 588-2239.

COLOR TV - 19" G.E., remote control, $150. Ext. 3392.

KILN - Paragon, 18½"x18", 2 full shelves, 1 half shelf, accessories, $175. 475-5448.

SEWING MACHINE - Kenmore, older model, $50. or reasonable offer. Marilyn, Ext. 2267.

COLOR TV - 19" Quasar, good cond., $100; Symphonic wireless-remote VCR, $200. Fred, Ext. 5032 or 744-2655.

RADIATORS - cast iron, various sizes, $6. and up, Bob Sr., 698-9234 eves.

CAMERA - Konica SLR FSI, auto., 4 mm-1.8 lens, power wind, ded., auto flash, mint, $100. 732-8837.

GUITAR - 1958 Fender Jazz Master, rosewood neck, white, just refretted, $500. Dave, 4256.

STEREO SYSTEM - high quality components, receiver, tape deck, turntable, speakers, $250; organ sheet music, popular. 821-2518.

SOFAS/LOVESEATS - $50/each; twin bed set, $140; gas grill, two burner; artificial x-mas tree. 722-3338.

HEALTH CLUB MEMBERSHIP - lifetime membership for Jack LaLanne and Holiday Health Clubs, $250. Ext. 4524.

HP-VECTRA P.C. - 640K, high res., RGB color monitor, 20-meg., hard disk, 1.2 mes. floppy, 360 floppy, mouse system, software, dust covers, $4,300. Ext. 4524.

PUMPKINS - all sizes, you pick, Saturdays & Sundays throughout Oct., Meadows Farm, Beaver Dam Rd., Brookhaven.

Yard Sale

BELLPORT - used toys, books, games, excel. cond., etc., Saturday, Oct. 25, 9:30 a.m. - 3:00 p.m., 7 Hulse St. 286-0259.

Car Pools

LIE EXIT 26-30 - two persons needed for car pools. Sorin, Ext. 2765.

ROCKY POINT - need third driver. Sal, Ext. 2460 or 744-9822.

MASTIC - need ride to/from Lab, 8:30-5:00 shift, will pay. Jody, Ext. 2907 or 395-3963 after 6 p.m.

Lost & Found

LOST - Gold Cross pen, probably inside gym, on 10/13/86, sentimental value. Doan, Ext. 7535.

FOUND - cross, in parking lot of Bldg. 459. Jerry, Ext. 7427.

Free

CRUTCHES - for your use or as donation to charity. Janet, Ext. 2345 or 929-8152.

Real Estate

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

For Rent

FLORIDA - Spring Hill, West Coast, fully equipped vacation house, 2 bdrm., 1 bath, l/r, kitchen, heated, a/c, avail. winter season or weekly till January. Ext. 4530 or 261-2719.

HAMPTON BAYS - spacious 1 bdrm. apt., w/w, $440/mo + util. 728-2104 eves.

HILTON HEAD, SC - 2 bdrm. condo, sleeps 6, many extras, beach, pool, tennis, golf, fall special, Lab employees & families only, $300/wk, $200/5 days. 585-9149.

SHIRLEY - 3 mi. to BNL, immaculate, 3½ room apt., w/priv. ent., non-smoker plus no children, appl. & util. inc. $550. Ext. 4512 or 281-4003.

SHIRLEY - 1 mi. to Smith Point, 8 mi. to BNL, immaculate, 3 bdrm. ranch, l/r, d/r, eik, util. room, w/w, appl., fenced-in yard, quiet st., $750 & util. 744-5448 after 5 p.m.

SHOREHAM - 3 bdrm. ranch, l/r, w/w, 5 appl., 5 min. to BNL, year round or till June, $675. 744-6274 before noon.

RIDGE - 2 bdrm apt., eik, l/r, full bath, $625 incl. heat & elec. 924-5541.

SETAUKET - S-3V schools, 3 bdrm. cont. Colonial, 2½ baths, huge l/r, d/r, family room, eik, 2-car garage, fenced-in ½ + acre, solar hot water. Ext. 4157 or 698-6103 eves.

BAYSHORE/W. ISLIP - large bsmt. apt., 2 bdrm., eik, l/r, s. yard, carpeted, priv. ent., off rd. park, $625/all, 1 mo. sec., owner. 655-4522.

HOLBROOK - spacious, newly decorated 4 bdrm. home, 1½ baths, country kitchen, dishwasher, new stove & windows, dining area, enclosed sunroom, closets & storage, avail. Nov. 1, $900 + util. Ext. 2529 or 588-7989 eves.

MEDFORD - Blue Ridge Condo, 1-2 bdrm., eik, w/w, a/c, cable, 5 appli., pool, tennis, golf, club house, no pets, $700 + util. 588-2389.

SHIRLEY - immaculate 3-4 bdrm. L-shaped ranch, l/r, kitchen, dining area, 2 full baths, 1-car garage, landscaped and fenced, avail. Nov. 1, ref. req., $750/mo. Susan, Ext. 7235.

HAMPTON BAYS - 2 bdrm. house, waterfront, avail. Nov. 1 to May 30, $390/mo. + util. 728-2104 eves.

MT. POCONO PA - Chalet, fall/winter, weekly/wknd. rates, 3 bdrm., sleeps 10, furn., tennis, lake, horseback riding, 15 min. to Camel Back Ski. Ext. 3164.

MASTIC BEACH - 5 rm. house, adults only, no pets, $650 incl. heat, 281-8538 after 4 p.m.

QUOGUE/FLANDERS - just built, 3 bdrm., 2½ baths, study, spacious l/r-d/r-family room, eik, f/p, w/w, deck, acre, near ocean and BNL, long lease, $1,200/mo. Ext. 4112 or 727-1782.

MASTIC BEACH - 2 bdrm. house, mo. to mo. lease, $550. + util. 744-2821.

For Sale

RIDGE - 1.12 acre parcel, 103' frontagex487' depth, ideally located, 60% cleared level, 40% wooded, $49,900. 924-3236.

NEW MEXICO - 5 acres, irrigated on hard top road, low taxes, $50,000. 265-2733 or 1-505-864-6520.

NEW MEXICO - 2,000 sq. ft. brick home, 1¾ acres, barn, low taxes, $70,000. 265-2733 or 1-505-864-6520.

ROCKLEDGE, FLORIDA - 2 bdrm., 2 baths, d/r, kitchen, family room-combination porch, 2 car gar., many extras, lot 75x115, stucco, like new, $64,500. 305-631-2840.

PORT JEFF. STA. - energy efficient 3 bdrm. ranch, vinyl siding, Andersen windows, att. garage, large deck, full bsmt., out bldg., $139,000. 928-6944.

SHOREHAM, NORTH - 4 bdrm., 2½ baths, den, f/p, bsmt., fenced, patio, formal dining room. 744-1750.

CALVERTON - mobile home, over-55, Senior Citizen Area, 2 bdrm., l/r, kitchen, bath, washer/dryer, patio, awning, shed, mint, $45,000. 727-2604 after 5 p.m.

HELEN, GA - time sharing, 1 week in Feb. and 1 week Oct., 2 bdrm., $7,500. 473-9180 after 4 p.m.

CALVERTON - 4 bdrm. townhouse, all appl., w/w, all new Anderson windows, 12x18' deck in wooded setting, 15 min. to BNL, $79,500. 878-2233.

SHOREHAM - 3 bdrm. ranch, l/r, d/r, eik, den, patio, attached shed, 1 wooded acre, SWR schools, $1,200 tax, $129,000 firm. Ed, Ext. 7786 or 744-7796 after 6 p.m.

POCONOS - 3 bdrm. chalet, l/r, d/r, family rm. w/wood burning stove, kitchen, w/w, garage w/elec. door opener, circular driveway, paved roads, pools, lake, clubhouse, tennis, all entrances guarded 24 hrs., more, $115,000. neg. 286-4652.

Wanted

14" RIMS - for Chevy, must be usable over disk or drum brakes. Morris, Ext. 4192.

IDEAS - for skits, monologues, songs, etc., about BNL's 40-year history. Janet, Ext. 2345 or Bldg. 134.

HOUSEKEEPER - cleaning, laundry, ironing, occasional child care, Mon.-Thurs., 9 a.m.-12 noon, non-smoker. 744-4611 after 6 p.m.

HOMES - for lovable cats or kittens, many with shots. 744-2821.

SUNGLASSES - plastic, old, broken, for lenses. Gene, Ext. 3080.

BASEBALL CARDS - any year, any cond., Dennis or Michael, 744-7796 after 6 p.m.

TRAINS - Lionel, American Flyer, accessories, any cond., brings good price. Carole, Ext. 3362 or 924-4097 eves.

CAR - Ford, for parts, 1968-1971. 727-0082 after 6 p.m.

HOUSEMATE - Blue Point house, close to water, $300/mo. & share util. Carrie, Ext. 2033 or 363-7286.

HOME - for abandoned cat, male, gray tiger, very friendly & affectionate. Anne, Ext. 5055.

EXTENSION LADDER - aluminum. Ext. 2487 or 928-6930.

QUAD - good cond., reasonable or trade for pick-up truck. Joe Bush, Ext. 4638 or beeper #572.

PORTABLE DISHWASHER - good cond. Larisa, Ext. 3395 or 928-4683.

HOME - for kittens, healthy, lovable. Lois, Ext. 2959 or 751-0023.

Ads left out of this issue due to lack of space need not be re-submitted to appear in the next issue.

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