



Members of the press panel.

The Roles Reversed

In a departure from custom Wednesday evening, six prominent science writers were featured in an open dialogue with scientists at a session of the conference on "Genetic Engineering for Nitrogen Fixation." Rather than a press audience questioning selected representatives of the scientific community, the press was on the podium before a gallery of researchers.

Robert Talbot, National Institutes of Health, (NIH), opened the session with a summary of the development of NIH guidelines and the pending legislation which has followed. Moderator Virginia White, science administrator and writer, set the stage for the forum with comments on the needs and concerns involved in the communication of scientific research to the public through the media.

The journalists, in turn, stated their views on reporting scientific research. Specific press problems pointed out were: dealing with scientists, the public, and the reams of technical material. John Behnke, editor of *Bioscience*, a professional rather than a popular journal, commented that scientists even have problems with excessive detail in technical manuscripts.

Robert Ubell, editor of *The Sciences*, concluded the press statements with a series of questions about nitrogen fixation, representing much of the public's concerns. These questions were not answered by scientists in the audience, who instead initiated a vigorous exchange of ideas in the more general field of science reporting.

One European scientist asserted that sensationalism is a major problem in the popular press. He suggested that reporters sacrifice some of their independence to increase objectivity, by having science news articles carry the by-line of both a journalist and a scientist.

The press panel objected to this system, pointing to the potential lack of objectivity of the scientist involved. They also noted that much of what the scientist considers

sensational is to them a reasonable attempt to stimulate reader interest by highlighting the "real-news" aspects.

"We are no more sensational in reporting than scientists are in writing research grants," said Peter Gwynne, *Newsweek*.

Earl Lane, *Newsday*, said that what the public wants to know, is "what's the payoff?" On nitrogen fixation research, for example, he felt his readers want to know the length of time involved, whether more crops would lead to cheaper prices, and other direct impacts.

"Science reporting is never a factor in (station) ratings," said Roger Field, *WNBC* and *WPIX*. "I try to get across as much science information as I can."

Field went on to point out that sensationalism is not a problem with science reporters. However, he did indicate that snags often arise when other journalists attempt to report science.

Both groups blamed the other for not fulfilling their responsibilities to educate the public about science. Judy Randall, *N.Y. Daily News*, pointed to the failure of some scientists to adequately communicate their findings, which led to a misinformed government decision on the swine flu vaccination program.

On the other hand, scientists protested the use of "wisecracks" in the press about the evidence for the recent ban on saccharin. In particular, they cited the much-quoted reference to 800 cans of diet soda per day being the danger level.

This forum gave both professions an opportunity to voice their opinions on key issues. Many other problems of mutual concern were brought out in the discussion.

These mutual problems show the relationship of the two fields. As Ubell stated, "Science and journalism are very much alike. The scientist tries to reduce complicated aspects of nature to simple terms. So does the journalist."

Future Science

I.I. Rabi, one of the world's foremost physicists and a founding father of Brookhaven, will present an AUI Distinguished Lecture on April 7, at 8 p.m., in Berkner Hall. He will address the subject of "Science and the 21st Century."

Winner of the Nobel Prize in 1944 for his work on the magnetic properties of nuclei, Dr. Rabi is professor emeritus of Columbia University. An Incorporating Trustee of Associated Universities, Inc. (AUI), he has served continuously on the Board since 1946, and was recently honored by that body for his distinguished service to Brookhaven.

Dr. Rabi joined the faculty of Columbia University in 1929 and remained on its staff throughout his long career. Three years prior to his retirement in 1967, he was appointed University Professor, the first to

hold this post.

During World War II, as a staff member and associate director of the Radiation Laboratory at MIT, he devoted his research to the development of radar. He also acted as an advisor to J. Robert Oppenheimer at the Los Alamos Scientific Laboratory and was present at Alamogordo in 1946 when the first atomic explosion took place.

Dr. Rabi is the recipient of many honorary degrees from universities in the United States and abroad. In addition to the Nobel Prize, he has received numerous other awards, including the King's Medal (Great Britain), Commander, Order of the Southern Cross (Brazil) and Commander, Legion of Honor (France). He has served on countless national and international advisory committees, among them the President's Science Advisory Committee, of which he was chairman from 1956-57 under President Eisenhower.

Evidence And Prospects

Representatives of private industry, government, news media, and many research teams in the scientific community met for an international conference at Brookhaven last week. About 200 participants shared their varied understandings of research, and the impact of potential results, in genetic engineering specifically aimed at enhanced agricultural production by increasing nitrogen fixation.

The conference on "Genetic Engineering for Nitrogen Fixation" was held from March 13-17 in Berkner Hall. Approximately 50 speakers gave their scientific presentations to the convened conference, which was sponsored by the Research Applied to National Needs (RANN) program of the National Science Foundation.

"Nitrogen fixation" is the natural process by which a few bacterial species can convert free nitrogen from the atmosphere into ammonia and other useful nitrogen-containing compounds. Free nitrogen is an abundant element, but cannot be used in this form by most living organisms. The absence of nitrogen's fixed counterparts, which are a scarce nutritional resource, is the most common limitation to growth.

Genetic engineering research in this field falls into four categories for manipulation of genetic information:

- in bacteria, to produce more effective nitrogen-fixing strains
- in plants to increase the variety of crops which can make efficient use of the nitrogen-fixing bacteria
- in both plants and bacteria, to increase the efficiency of fixed-nitrogen transfer from the bacteria to a specific agricultural crop
- radically, in plants, to confer the ability for direct nitrogen fixation.

Dr. Peter Day of the conference advisory committee explains, "The genetic engineering techniques that were discussed, include moving genes from organisms that fix nitrogen to those that don't, using recombinant DNA. But, this engineering also involves new concepts like protoplast fusion and classical selective-breeding of plants and nitrogen-fixing bacteria."

Some of the main invited speakers at the conference dealt with topics outside genetic engineering. Many of the presentations covered basic research, which is required to continue engineering efforts directed towards crop improvement, like analysis of the nitrogen fixation and its genetic foundations.

Most of the scientists attending the conference were interested in sharing the results of each other's work. They wanted to obtain background information for use in the specific research programs they carry out in home institutions. In addition, Dr. Crodowaldo Pavan, head of the biology department at the University of São Paulo in Brazil, expressed interest in long-range problems that can be potentially solved



M. J. Schell, University of Ghent, Belgium, presented key information on the Ti-plasmid of *Agrobacterium*. This research represents the only existing evidence suggesting that bacterial DNA may be transferred and expressed in a plant cell line . . . an important step in conferring nitro-fixing ability to plants.

with the genetic engineering approaches developed for nitrogen fixation.

"One of Brazil's problems is very acidic soil," said Pavan. "People aren't going to work on it in America, because you don't have that problem here. So, genes for acid soil tolerance in plants must be worked on in Brazil."

Pavan has been lecturing in Brazil over the past three years to promote genetic engineering research in agriculture. One of his primary goals is to develop a research team devoted to such work, making use of the newest techniques as they are evolved in laboratories around the world.

Other participants in the conference were concerned with the immediate applications of the present research to agriculture. Ken Farmer, the president of a corporation that distributes a substitute for chemical fertilizers, presented one of the ten papers contributed by participants.

Farmer's product is the only commercially marketed nitrogen-fixing blue-green
(Continued on page 2)



Some members of the Conference Advisory Committee talk in between sessions at Berkner Hall. From left, Marvin Lamborg, C.F. Kettering Research Labs; Peter Day, Conn. Agricultural Experiment Station; D. Helinski, U. of Calif.; and R. Burris, U. of Wisconsin.

Not For Women Only!

Assertiveness training is being sponsored by an increasing number of business, government and consumer organizations across the country. The training, which involves learning to speak and act in a direct and appropriate way, originated primarily as a program for women, who must often interact with organizations where men predominate.

With this in mind, Janet Whitehead, who serves as BNL Women's Program Coordinator, recently invited women employees to a lecture on assertiveness training. Since the lecture, several BNL men and women have pointed out - correctly - that assertiveness training is not for women only, but can apply to any person wishing to improve communications skills.

Accordingly, the second scheduled assertiveness talk will be open to all interested employees. The talk will be held on Monday, March 28, in Berkner Hall, from 12:30 - 1:30 p.m. Francine Berger, Adjunct Professor at Dowling College, will be the lecturer.

Conference (Continued)

algae in the United States. The strain, dubbed "Genesis II," acts as a "living, green manure." Such colonies, introduced into the soil of a crop, will secure its own energy through photosynthesis and excrete fixed nitrogen, which is valuable to the plants.

Cost-efficiency studies have greatly favored the use of such natural techniques. Farmer asserts that significant increases in crop yield - up to 54 per cent - have been shown as the result of using nitrogen-fixing bacteria, at 41.7 per cent of the cost for synthetically fixed nitrogen.

The conference was conducted for RANN by Associated Universities, Inc. (AUI). Dr. Alexander Hollaender, AUI, served as conference chairman. Proceedings will be published by Plenum Press in July.

—Cliff Cockerham

Tune In!

Question:

This is in response to Mr. McAlary's comments on Bankers Trust and Credit Union. I appreciate the fact that the Lab needs a bank to handle the payroll, operating funds, and a place for employees to cash their checks. What I do take exception to is the interest rates stated in the article. Here is a list of Grumman's Credit Union's interest rates both for loans and savings. (List not reproduced here.)

Answer:

The type of loan most frequently used by Brookhaven National Laboratory employees at Bankers Trust is the personal (unsecured) loan. The APR rate for this type of loan as quoted in the Bulletin Board is 12% for Grumman, and a range of 10.57% to 12.11% by Bankers Trust.

The second most popular loan at Bankers Trust by Brookhaven National Laboratory employees is the new automobile loan. Although not quoted in the Bulletin Board article, Bankers Trust APR rates range from 10.57% 1 year, 11.45% 2 year, 11.49% 3 year, and a special rate of 10.74% for a four year period. The four year 10.74% rate requires minimum financing of \$4,000 and a 15% down payment. These rates could then be compared to Grumman secured rate of 10.2%.

In taking exception to the Bulletin Board article, it appears to me that you have compared the Bankers Trust unsecured loan rate of 12.11% to the secured rate of Grumman of 10.2%, which essentially is not a fair comparison.

If I can provide you with further information, please let me know.

—B. McAlary

BAFFA Concert

The BAFFA Symphony Orchestra will present its second concert of the season on Sunday, March 27, at 8 p.m., in the Sayville Jr. High School auditorium, Johnson Ave., Sayville.

The program highlights sections of the orchestra through special pieces by Strauss, Husa, Elgar and Milhaud, as well as full sections for orchestra by Dvorak (Carnival Overture) and Ravel (Bolero).

Tickets are \$2.50 in advance and \$4.00 at the door. They may be purchased by writing to BAFFA, Box 16, Bayport, N.Y. 11705. Information on other ticket outlets may be had by calling 286-0517 or 588-5909.

Spanish Guitarist To Give BERA Concert

BERA is proud to present the distinguished classical guitarist Narciso Yepes in a recital to be held Monday, March 28, at 8:30 p.m. in Berkner Hall.

Narciso Yepes was born in 1927 in Lorca, southern Spain. He began to play the guitar at the age of five. His early studies in Lorca were followed by courses in harmony, composition and the guitar at the Valencia Conservatory. In 1964 he came to the attention of the director of the Spanish National Orchestra, Ataulfo Argenta, who urged him to go to Madrid, where he made his concert debut the following year with the interpretation of Rodrigo's "Concierto de Aranjuez" in the Teatro Espanol. In 1950, after performing in Paris, he spent a season studying interpretation with Enesco and Gieseking. It was in 1952 that he created the memorable musical sound-track for the award-winning French film "Forbidden Games."

Since then Yepes has traveled to the four corners of the world, performing in recital as well as with the leading orchestras of Europe, the Near East, North and South Africa, Latin America and Japan.

Two dozen of his recordings have been released to date, and his research into forgotten manuscripts of the sixteenth and seventeenth centuries has resulted in the transcription of early tablatures into modern notation. His extraordinary new ten-



Narciso Yepes

string guitar will make it unnecessary to transcribe the Renaissance and baroque music originally written for the lute.

Narciso Yepes, through his patient and sensitive study of his instrument, has developed a revolutionary technique and discovered hitherto unsuspected resources and possibilities. His exceptional pedagogical gifts have caused guitarists from all over the world to travel to Madrid for advanced study with him.

Mr. Yepes will perform an all-Spanish program at BNL; music will range from the Renaissance to the 20th Century.

Admission	\$4.00
Persons over 65	2.00
Students with ID	2.00
Persons under 18	1.00

Cafeteria Menu Week Ending March 25, 1977

Monday, March 21	
Tomato vegetable soup	
Keilbasy & sauerkraut	1.15
Grilled ham steak & 1 veg.	1.30
Hot deli - pastrami	
Tuesday, March 22	
Cream of potato soup	
Southern fried chicken & 1 veg.	1.15
Macaroni & cheese & 1 veg.	1.05
Hot deli - veal & peppers	
Wednesday, March 23	
Beef barley soup	
Tuna noodle casserole	1.10
Hot deli - corned beef	

Special

Cup of soup, tacos & refried beans
choice of pie or ice cream, small beverage
\$1.87 plus tax

Thursday, March 24	
Chicken noodle soup	
Chili dogs & rice	1.05
Salisbury steak & 1 veg.	1.25
Baked Virginia ham	
Friday, March 25	
New England clam chowder	
Broiled filet & 1 veg.	1.15
Roast sirloin of beef & 1 veg.	1.35
Hot deli - meatball & peppers	

Speaking Locally In March

Addendum:

Mar. 8 - Maxwell Small (DAS), Bellport Garden Club, on **BNL's Water Recharge Program**

Mar. 22 - Douglas Humphrey (Photography & Graphic Arts), Long Island Communicators, Inc., on **Public Relations Photography**

Mar. 25 - Wm. S. Hillman (Biology) and Ralph Weston (Chemistry), Shelter Island High School Science Fair Judges

Mar. 29 - R.C. Anderson (Director's Office), New York Area Council for Industry Education Cooperation, on **The Energy Crisis**

Mar. 29 - Ralph Weston (Chemistry), Career and Workshop Day for students and community, Bayshore High School, on **Man's Threat to the Stratosphere**

Mar. 29 - Wm. S. Hillman (Biology), Career and Workshop Day, Bayshore High School, on **Organic Gardening: Myths & Realities**

Mar. 30 - Irvin A. Meyer (Chemistry), Ward Melville High School, Setauket, on **The Art of Glassblowing**

Public Sale Of Motor Vehicles

Three (3) vehicles, located at Warehouse T-87, will be available for Public Sale.

Inspection will be permitted from March 21 through March 25, during the hours of 9 a.m. to 4 p.m., except Saturday and Sunday.

Bids will be opened on March 29th, 1977, at General Services Administration, Business Service Center Bid Room, 26 Federal Plaza, New York, N.Y.

This will be an Informal competitive bidding. Bid forms may be obtained at Buildings 87 and 211. For further details, please call extensions 2302 or 2977.

Arrivals & Departures

Arrivals

Mary E. Gress	Chemistry
Janet Hoefling	Director's Office
Robert E. Lade	Chemistry
Anita J. Lewis	Medical
Walter C. Lindsay	App. Science
Loretta D. Schuman	Medical

Departures

Bertus K.S. Koene	Physics
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IBEW Meeting

Local 2230, IBEW will hold its regular monthly meeting on March 24, 1977, 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.

On Wigglers

The first national workshop on "wigglers" will be held at the Stanford Linear Accelerator complex during the week of March 21st. The committee organizing the workshop has as its chairman Herman Winick of SLAC and includes John Blewett from BNL. A preliminary meeting including Winick, Blewett and Albert Hofmann from CERN was held at Brookhaven last Monday and Tuesday (March 14-15).

So what is a wiggler? It is a device with all sorts of esoteric advantages which is to be included in an electron synchrotron or storage ring and which is being studied for Brookhaven's National Synchrotron Light Source. A wiggler includes alternating magnetic fields in which an electron goes through a wiggly motion; this encourages it to emit electromagnetic radiation (light, ultraviolet, X-rays) and has profound effects on its behavior.

Rena Chasman and John Blewett have made an analysis of the fields and orbits in wigglers of various sorts. Bill Sampson and Ken Robins have made wiggler models, some superconducting, all with interesting and encouraging results.

An intriguing sidelight from Stanford's High Energy Physics Lab: John Madey, one of its physicists is studying the possible use of wigglers in linear electron beams to perform as lasers. Indeed the device that we describe as a "helical wiggler" is called, at Stanford, a "free electron laser."

At the National Particle Accelerator Conference in Chicago this week it is expected that wigglers will be a topic of intense discussion.

Cooking Exchange

Next Wednesday, March 23, the Cooking Exchange will present many new ideas on how to prepare quick, easy and cheap meals. Scheduled for demonstration are recipes from Turkey, South Africa and the USA.

Be at the Recreation Building at 12:30 to watch the preparation of all these goodies and then for 75¢ you will have the privilege of tasting the delectable results.

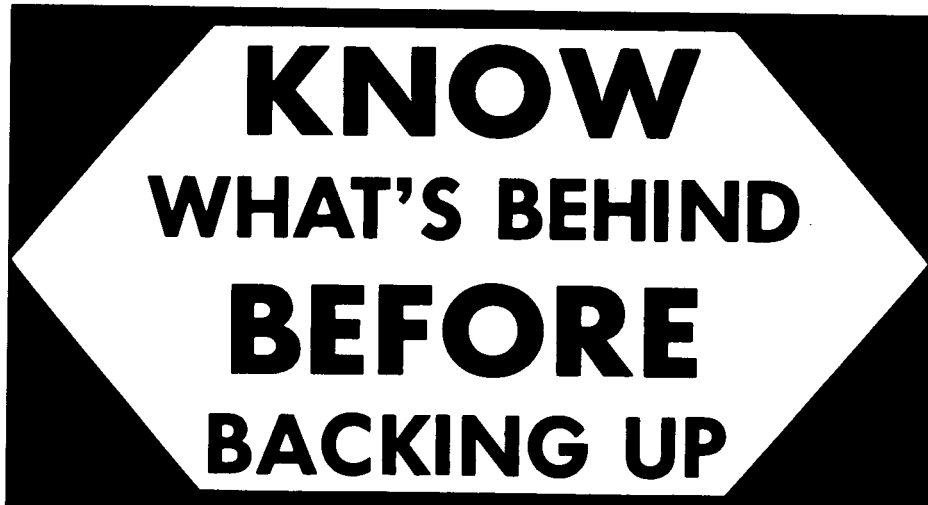
Babysitting is provided for only 25¢ per child. Please bring a toy for your child to play with.

Coming up next - desserts to impress your boss, your mother-in-law and your "rich" uncle. Call Elaine Lowenstein at 286-2788 to contribute your specialty.

New York City Train Trip

The Hospitality Committee is planning a group railroad trip to the city, Wednesday, April 6. Departure will be at 8:32 a.m. from the Patchogue LIRR station. Round-trip fare for adults is \$2.45, children under 6 years ride free. Reserve a ticket by sending your fare through the U.S. mail to P.O. Box 322, Upton, New York, no later than March 31. Make checks payable to "Cash." Refunds will be made only if cancellations are received before noon on April 1.

For those who are interested, the group has arranged a tour of the NBC studios from 11 a.m. to 12 noon. The cost is \$1.85 for adults; \$1.20 for children 5 to 14 years; and children under 5 will be admitted free. If you are interested in taking this tour, please include the admittance fee with the train fare and follow the procedure as indicated above.



It seems that too many drivers back up without bothering to look at what's behind them. Of the 37 accidents reported on site last year, half were in this category, and many involved backing into parked cars. Although this type of accident doesn't generally result in injuries, it does result in vehicle damage which costs the Laboratory several thousand dollars a year. Drivers are urged to remember that rear view mirrors are there for a purpose.

BROOKHAVEN BULLETIN

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Letters To The Editor

To the editor:

The Brookhaven International Cricket Club wishes to extend special thanks to everyone who contributed to making a success of our First Annual Winter Cricket Ball.

To the BERA Board, Blanche Laskee and Ginnie Sayre, for their help and guidance; to all the people who helped us sell tickets; to Doug Smith for his winning poster design; to Doug Humphrey, whose outrageous photography sold more tickets than anything else; to the *Brookhaven Bulletin* for its extensive coverage and enthusiastic support; to Henry Boyd, Roy Johannesen, Pat Glynn, and staff, who put on fine food and drink and gave us tremendous cooperation from the beginning; to Lee Hayes and her troupe of highly professional belly dancers; and to the MJB Quartet, who kept everybody dancing all night long.

Most important, to the nearly 400 of you who came ready to enjoy yourselves. Without you it couldn't have been much of a party. In addition to our more than fifty guests from the Stony Brook, Oyster Bay and Cold Spring Harbor cricket clubs, we were especially gratified that an entire cross-section of BNL attended - what everybody had in common was knowing how to have a really good time. And that is what BICC is all about. Does anybody have ideas for the Second Annual Winter Cricket Ball?

This summer, we hope to see many new faces. Come out and play, or just watch - find out what this fascinating (boring?!) game of Cricket is all about. You may be surprised to find out what a tough, grueling, challenging, demanding, silly game it can be.

— The Brookhaven International Cricket Club

Louisville Seeks Dean

The University of Louisville seeks candidates for the position of Dean of the Graduate School. The Graduate School has a current enrollment of 2,700 and offers advanced degrees in over 70 areas of study.

Candidates should have a national reputation in their discipline, have experience in directing graduate students, and in administration and management. For further information, contact the Office of Scientific Personnel, extension 3338.

Sports News

Basketball

In the first game of the double-header on February 17, the Dribbles defeated the Persuaders 82-74. The balanced scoring of the Dribbles was led by Jeff Gaffney and Mac Thomas who each had 21 points. The leading scorers for the Persuaders were Fletcher Johnson with 27 points and Dr. K who operated for 31 points. In the second game the Browns defeated the Spuds 80 to 76. The leading scorer for the Browns was Jerry Hobson with 39 points. High scorers for the Spuds were Stanley Gilbert and Robert Doty with 25 and 24 points, respectively.

In the first game of the double-header on February 24, the Spuds led by Bob Doty's 30 points and Stanley Gilbert with 25 points defeated the Dribbles 83 to 78. Jeff Gaffney scored 28 points to lead the Dribbles. In the second game, despite the fact that Fletcher Johnson set a BNL scoring record with 54 points, the Browns exterminated the Persuaders 132 to 110. Neither team bothered to play much defense and "The Moose" got 41 points and Jerry Hobson scored 51 points.

In the first game on March 3, Stanley



Four early entries in the Ms. Savoy Contest are from left, Carolyn Smith, Sandra Saunders, Donna Mason and Donna White.

Calling Ms. Savoy

There's a big BERA show coming up in May, about which you'll hear more later. But, this much we can tell you, it will be direct from the Savoy Manor Ballroom, a major talent showcase in Harlem.

A feature of the program in May will be the finals of the Ms. Savoy contest, a competition which is being presented by the Brothers of BNL, a group which has been organizing informal get-togethers for some years.

The contestants will be drawn from women employees or guests at the Laboratory. So far, five women have entered and the committee wants to hear from a lot more. This is not just a beauty contest, they want to emphasize. Any women who sings, dances, designs her own clothes, or whatever, will have as much chance to become Ms. Savoy as one whose beauty is her talent.

So first things first. Contest entries should be sent to Paul Akins, Bldg. 452, by April 1. If you wish to compete, clip out the attached form and sent it to him as soon as possible. Semi-finals will be held at the Rec Hall on April 16.

Entry Form

MS. SAVOY CONTEST

Name Dept.
Address Tel. Ext.

Gilbert with 40 points led the Spuds in downing the hapless Persuaders 94 to 69. Bob Doty had 24 points and Rich Sapienza sank 18 points in the victory. Fletcher Johnson paced the losers with 24 points. In the second game the Dribbles upset the Browns 84 to 74 led by Jeff Gaffney with 26 points and Dennis Nordstrom with 21. The Browns were paced by "The Moose" and Jerry Hobson who each had 23 points.

In the final game of the season for them, the Persuaders were destroyed by the Dribbles 61-89. Wayne Smith led the Dribbles with 31 points and Jeff Gaffney with 30. Dr. K had 27 points for the Persuaders.

In the last game of the season, the Browns defeated the Spuds 99 to 88. Jerry Hobson led the Browns with 28 points. Stanley Gilbert had 30 for the Spuds. Other high scorers for the Spuds were Bob Doty and Rich Sapienza.

A playoff game between the Browns and the Dribbles will be played on March 17 to determine the second half championship.

The championship game between the Spuds, first half champs, and the winners of the second half, will be played on March 24.

Bowling

Purple & White League

3/3/77: The Flounders are still in first place, followed by the Odd Balls and the Penthos. Jim Petro, of the Flounders, had a great night rolling a 190/199/217 for a 606 scratch series earning his club award.

The Alley Oops set a new league high gross series of 2483.

High games for the men were Marshall Bull 213, Bud Pollock 202, Ken Asselta 201, Dick Murgatroyd 201.

High games for the women were rolled by Pat Manzella 183, Nancy Overton 181, Grace Schiro 171.

Pink League

The Med Squad is still in first place followed very closely by the Gutter Getters. Marie Brenner bowled a 207/163/515 scratch series rivaled by Lincoln Boyd with a 202/244 scratch game and a 503 scratch series. Great bowling gals! Other high games were Jean Matkovich 182/161, Renie Rosati 170, Helen Keeley 168, Carol Beckner 166, Betty Jellett 166, Noel Netusil 164, Sue Vanderkolk 163, Irma Montanez 163/160/641 gross series, Fran Scesny 161. Fran also converted the 4-7-10 split.

Black & Blue League

Ellie Kristiansen did the "impossible" and converted the 8-10 split. Colleen Holland raised her voice 2 decibles and moved the 7 pin over to stand in the 10 pin spot. High games for the night were Bill Kristiansen 205, Ellie Kristiansen 180, Renee Flack 167. High gross pots were won by Howie Antonio 234 and Ellie Kristiansen 226.

Red League

The Old Timers took 8 to hold onto first place. W. Reams had another steady night with a 216. The 76'ers took 11 points led by R. Larsen's 609 scratch (201/208/200). That's the fifth 600 scratch for Dick. T. Holmquist had a 213 and 674 gross pins and J. Connelly bowled 209.

The Anachems also took 11. P. Klotz had a good night with a 202/201. For the Sandbaggers R. Meier bowled 221, R. Jones 216 and E. Meier 207 but only took 3 points. They were beaten by the Cosmos who knocked down over 3000 pins. For the Designers C. Zavesky bowled a 200.

Green League

The Super Cools are in first place after taking 6 from the Pick-Ups. The Charlie Browns moved into second place as they took eight from the Designers. J. Scott had a 209/212, 614 scratch series. The Blue

Jays dropped to third losing 11. The Got-A-Hit-Ums took 8 from the Bubble Boys. The Pinball Wizzards took 3 with G. Meinken having a 212 game.

Purple & White League

The Odd Balls are in first place by one point, followed by the Flounders and the Penthos.

Jim Petro had another great night bowling a 235. Nice games also by Marshall Bull 216, Nate Carter 209, Dick Murgatroyd 208, Don Schug 207 and Ted Erickson 201. Bob Brown converted the 6-7-10.

Ellie Murgatroyd and Betty Roche led the women, each bowling a high of 171.

In the Long Island Industrial Tournament, the BNL team had a rough time their second night of bowling - "splitsville." R. Larsen was able to recover and had a 589 scratch with a 236 game. BNL dropped to 12th place in both divisions of the tournament. Have faith, we'll get the wood next week.

Soccer

Entering the last third of the season, the Medical-Biology-Chemistry team leads the League. Out of first place for only the previous week, the determined MBC team played one of their best games in defeating Port Jeff 7-0.

Stony Brook enjoyed a one week stay at the top of the table but were ambushed by an inspired AGS squad 3-1.

A DAS victory over Physics closed out the week's schedule.

League Standing (including 3/11)

Team	W	L	T	Pts.
Med-Bio-Chem	5	2	3	13
Stony Brook	5	3	2	12
Physics	4	4	2	10
AGS	4	4	2	10
DAS	3	5	2	8
Port Jeff	3	6	1	7

Volleyball

Employees' League

Phoenix breezed by the Circuits (3-0), the Cool Tools split with Chemistry (2-1), and the Spikers swamped the Road Runners (3-1). Standings are now:

	Won	Lost	Pct.
Phoenix	13	2	.867
Spikers	14	4	.778
Cool Tools	9	6	.600
Atom Spikers	8	7	.553
Road Runners	5	10	.333
Chemistry	4	11	.267
Circuits	1	14	.071

League play concludes this week. Phoenix won the first half, so there will be no playoffs if Phoenix wins at least two games this week.

Mixed League

Current standings:

Division A

	Won	Lost	Pct.
Trolls	33	3	.917
Spikers	21	15	.636
Oceanography	18	18	.500
Parton Propellers	17	19	.472
Pushovers	11	25	.306
Upstarts	8	28	.222

Division B

	Won	Lost	Pct.
Nuts & Bolts	26	4	.867
Terabits	21	12	.636
Diamonds	17	13	.567
Lookin Good	16	14	.533
Nuke Powers	13	17	.433
Center Crew	11	22	.333
Flashers	4	26	.133

Division A's schedule concludes on March 28, Division B's on March 21. The League championship game is scheduled for April 4 when Division A champs, the Trolls, will play the Division B champs, the Nuts & Bolts.

Important Notice! There will be a captains' meeting (both Leagues) on Friday, March 18, in Berkner Hall, Room B, at 12 noon. We will discuss the formation of a spring/summer Volleyball League: who can play, where to play, with what rules, etc. Employees' League captains are asked to bring a list of 16 All-Stars from their League to play in the 1st Annual All Star Game. These lists will be combined and the players will be notified shortly. March 23 can serve as a practice date for the All Star teams. Mixed League captains are asked to think about possible Mixed All Star Games - all women, mixed, or whatever.

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.

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. 2874 or 2882.

LABORATORY RECRUITMENT: Opportunity for present Laboratory employees.

104. **TECHNICIAN** - AAS degree or equivalent in electronic technology. Competence required in the construction, troubleshooting and maintenance of sophisticated digital equipment, including IC circuitry. Some mechanical skills desirable. Physics Department.

105. **ENGINEERING ASSOCIATE** - BS degree or equivalent in engineering, physics or mathematics with competence in scientific computer programming. Experience in reactor safety analysis desirable. Department of Applied Science.

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

106. **COMMUNITY HEALTH ASSOCIATE** - MS degree or equivalent in community or public health with expertise in epidemiology. Background in computerized mathematical modeling would be desirable. Department of Applied Science.

107. **PHYSICS ASSOCIATE** - BS or MS or equivalent in physics with background in cryogenics and high vacuum technology. Thin film deposition experience desirable. Physics Department.

Autos & Auto Supplies

65 VW MOTOR - Needs muffler. \$50. 878-2239.

72 SAAB - 99 cm, 2 dr, standard trans, am/fm stereo, good cond, 30 mpg. \$1795. Rich, Ext. 2502, 924-4237.

70 FORD TRUCK - F250, 4 wheel dr., 67,000 mi. \$1400. Ext. 3468.

53 CHEVY BELAIR - 2 dr, auto, green, excel cond, must be seen. John, Ext. 2502, 751-6390.

64 VW BUS - Set up for camping, cabinets, Jalousie windows, extras, mechanically good, needs minor work. \$375. 727-7304.

75 MONTE CARLO - Fully loaded, excel cond, low mi, must be seen. Ext. 4612, Phil, 727-0842 after 5.

64 DODGE DART - 4 dr, ps, 6 cyl, auto trans. Ext. 2624.

74 DODGE MONACO - Brougham, ac/ps/pb, am/fm, radial tires, A-1 cond. \$2750. 472-1833.

73 MERC ENG - 20 hp, long shaft, mint cond. \$400. 286-3815.

68 PLY FURY - New front, back brakes & ball joints, 4-dr, good cond, in & out, new trans, 10,000 mi. \$300. 473-6333.

70 SAAB - 6 passenger station wagon, tip top cond, new tires & battery, 48,000 mi, 32 mpg, \$1000. R. Ince, 286-0682 after 6.

65 CADILLAC - Sedan de Ville, \$1100. Frank, Ext. 2301, 727-3249.

74 AUDI 100LS - 4 dr sedan, tan w/brown leather int, am/fm stereo, standard, great gas mi, excel cond in & out, extra set new snow tires. Ext. 2882/2883, 473-9121 after 6.

2 15" MERC RIMS - 2 Buick 15", \$8/pair. Nick, Ext. 4810.

71 FORD PICK UP - Big 6, HD w/cab over camper, sleeps 4, heater, stove, toilet, sink, ice box, (2) #10 tanks. \$2500. 732-6173.

RADIAL TIRE - LR 78-15, 6 ply, w/w, steel belted, 3000 mi, Joe, Ext. 3273.

75 HORNET - 4 dr, ps, 6 cyl auto. Bob, Ext. 4411, 727-2346.

74 KAWASAKI - F250, street & trail, immaculate, under 2000 mi. \$550. Bob, Ext. 4411, 727-2346.

73 CHRYSLER NEWPORT - Ps/pb, very good cond, new tires. \$1900. Chris, 929-8349.

2 WHEELS - Chrome reverse, fits AMC, Fords, Chrysler, 14", 5-lug. Al, Ext. 2301, 588-4703.

70 MERC MARQUIS - Ac, am/fm stereo, new muffler system. \$1100. 399-1791.

73 BUICK REGAL - Vinyl top, opera windows, all power, ac, excel cond. Brehm, 744-8567 after 5.

74 GREMLIN - 23,000 mi, auto trans, ps/pb, x package, radio & roof rack. Dick, 286-8906.

WINDOWS - 1 pair heart shaped for van, \$35; 1 pair gem shape windows for van, \$45. Bill S., Ext. 4434.

SNACK TRAY FOR VAN - Dodge, \$15; spoiler for Dodge van, slight crack, \$15. Bill, Ext. 4019.

69 TOYOTA PICK UP - Red w/cap, 36,000 mi. Asking \$1200. Karen, 727-7152 after 5.

66 CADILLAC - Coupe de Ville, near mint cond, all options, reasonable. Larry, 751-2149.

70 CHRYSLER - 2 dr, ps/pb/p seats & windows, very good tires & snows, good cond in & out. Ext. 3319, 751-7140.

66 VW SQUAREBACK - Dealer rebuilt, good tires + snows. Ext. 3319, 751-7140.

VAN SEATS - 54" & 70" length, blue, excel cond. \$30 each. From '71 Ford club wagon. Dick, 878-1580.

69 VW CAMPER - Clean, must see. L. Rogers, Ext. 4222.

76 FORD TORINO - Station wagon, 15,000 mi, auto, ps/pdb, pw, cb radio, tow pkg, hitch, excel cond. \$4,500. Ext. 3278.

76 SUZUKI - 550 cc, 2500 mi, crash bars, windshield, vinyl saddle bags, excel cond. Howard, Ext. 3260, \$1500 firm.

SNOW TIRE - 650-13 w/rim. \$12. Ext. 3609.

68 CHEVY NOVA - 6 cyl, automatic, excel running cond, 58,000 mi, 2 dr, \$695. 286-9260.

68 CHEVY BELAIR - 307, 4 dr, a/t, high mi, runs well, needs work. \$175. 286-3791.

72 AUDI - LS10, 2 dr, sun roof, am/fm, excel cond, rebtl eng. Ext. 3766, 286-0123.

69 DODGE SWINGER - Std trans, 2 dr, 6 cyl, 4 new tires, rebuilt eng, good cond. \$650. Ext. 3390/3177.

72 SAAB - 99 cm, 2 dr, std trans, am/fm stereo, good cond, 30 mpg. \$1985. 924-4237.

Boats & Marine Supplies

17' CRUISE CRAFT - '75 "Mako Type," 100 hp Merc, trailer. \$3500. 878-0840, 878-0894.

PROPELLER - For 72-73 50 hp Mercury, 10 3/4x11, brand new. \$25. 281-8458 after 5.

72 MERCURY - W/power trim, controls, cables, harness, tank & hose. \$1400. 281-8458 after 5.

MINI FISH - Fiberglass sailboat, sunfish's little sister, lime & white sails, excel cond. \$400. 286-2292.

TEE NEE TRAILER - Boat or utility, 500 lb capacity. \$200. 286-2292.

18' SKIFF INBOARD - 4 cyl, 6 V, canvas, seat 8, carpet, rag top, night lights, rod holders, pump, preservers, horn, rope, gauges, paddle, marine head. Tom, 325-1524.

30' RICHARDSON CLASSIC - 1929, hull extensively rebuilt, interior bare, energy efficient, hull design. \$800. Paul, Ext. 3277, 298-4985.

24' ZOBEL - Sea skiff, lapstrake hull, Chrysler crown eng, ideal fishing boat. \$500. Jack, Ext. 3464.

MOORING - Mushroom type w/1/4" chain & float. \$30. Joe, Ext. 4069.

17' SAILBOAT - Fiberglass sloop, Jobjack class, excel cond, main sail, jib, spinnaker w/trailer. Asking \$1150. Joe, Ext. 4069.

22' THUNDERBIRD - F/g, twin 120 hp, i/o, d/f, cuddy cabin, head, full canvas, extras, excel. \$3500. 281-2767 eves.

35' MARBLEHEAD - Twin gray marine, 120 hp, d/r, vhf radio, sleeps 4. \$8000. 475-3973.

15' GARVEY - Ideal for clamming, plus rebuilt 35 hp Evinrude, trailer & extras. \$750. Ext. 2345, 472-1735 after 6.

15' TRI HULL BOAT - 1970, fiberglass, 40 hp Johnson, '76 shoreline gal & boat trailer. \$1500. 878-2704.

10 HP CHRYSLER OUTBOARD - 1974, never used. \$400. 878-2704.

15' CENTURY - Wood boat, 25 hp Elgin elec start motor, tilt-bed trailer, \$350-\$450 depending upon state of refurbishing. 928-2803 after 6.

50 HP MERC ENG - 1975, used one year, good cond. \$850. 286-8517 after 5:30.

18' THOMPSON - In/outboard eng, elec winch, Cox tandem trailer, excel cond. Asking \$1800. 727-5912.

31' BALTZER - Twin 125 hp Chrysler engs, camper back, ideal family/fishing boat, must sell. 331-1718.

Miscellaneous

When there is a backup of classified ads, miscellaneous ads that have been submitted more than once will not be repeated.

BICYCLE - Girl's high rise, 3 spd, hand brakes. \$20. 732-1298.

BOW - Howatt hi-spd, 28 lbs, at 25". \$25. Ext. 4003, 924-4373.

SINGER SEWING MACHINE - Commercial tailor's model w/table. \$200. Tony, Ext. 4087, 288-3535.

BICYCLE - Vista men's 10 spd, 23" frame, lugg rack, gen light, center pull brakes, pump, excel. 732-1298.

FURN - Corner sectional, 8', \$150; bench couch w/built in tables, \$100; lamp & coffee table, \$75 each. Ext. 3121, 744-5261.

STORMS & SCREENS - 30 each wood storm windows & screens, good for cold frames. 281-9095.

GIBSON GUITAR - 1956 Les Paul Jr, all orig, very good shape. Asking \$350. Ed, 727-3608.

COIN JEWELRY - Hand crafted, pendants, rings, earrings, buckles. 924-3236.

SLIDE PROJECTOR - 35 mm, Reverse, w/9 slide trays, excel cond. \$40. C. Nauman, Ext. 3412, 286-3764 eves.

KAYAK PADDLE - Klepper, wood, 2-pc, adjustable to left or right hand, mint cond. \$25. C. Nauman, Ext. 3412, 286-3764 eves.

BIRDBOUSES - Novelty, handmade, various prices. 281-2767 eves.

BOWLING BALL - \$5; 400 power microscope lab, \$10; old books & doll. 727-5912.

TOY POODLE - AKC female 9 month old, house-broken, \$100. Eddie, 475-2656 eves.

DRAPES - White background w/black & gold velvet design, top valance & tie backs, 195" x 101", white underdrape 144" x 84", \$100; matching set of drapes 110" x 95", \$75, orig cost of both \$400. 473-9180.

DRAPES - Orange damask, 195" x 101", \$75, matching set 110" x 95", \$65, both for \$125. 473-9180.

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

MILLER PLACE - Scotts Beach, 3 bedrm, 7-rm ranch, fireplace in living rm, full dining rm, 1 acre landscaped, priv community & beach, low taxes. \$67,000. 744-3901.

RIDGE - Strathmore, 3 bedrm townhouse, 1 1/2 baths, fully equipped, \$28,000, low cash over 7 1/2% mortgage. 924-3361.

MASTIC - Liv rm, 12 x 24 den/dining, paneled, wood deck, 125 x 100 corner lot, 2 bedrm, s/s, low taxes, treed, full basement, new kitchen. \$29,500. 281-7763.

POCONO PROPERTY - Horses swimming, ski lifts, tennis, near boating in Delaware, priv community w/gate guard, will hold mortgage. Ext. 3870, 732-3003.

CORAM - Immaculate 4 bedrm colonial, eat-in-kitchen, formal dining, living, 1 1/2 baths, full basement, garage, s/s, extras, principals only. \$38,900, negotiable. Ext. 202, 929-8300. Ask for Bill.

N SHIRLEY - 4 bedrm colonial, 1 1/2 baths, paneled fam rm, fp, coutry kitchen w/appl, dining rm, garage, basement, landscaped, wooded 1/2 acre, extras, Middle Is School Dist. \$43,500. Ext. 4662, 924-3794.

WADING RIVER - 3 bedrm, 2 bath, all appl, fp, hot air heat, oil burning furnace, approx 1/2 acre, 1 block to beach, deck, patio, garage. \$64,000. Ext. 2446, 929-6172.

BELLPORT - 4 bedrm cape, 1 1/2 baths, lg living rm, dining, inground pool, fenced yard. \$55,000. 286-0795.

WADING RIVER - Charming cape on landscaped treed 3/4 acre, 3-4 bedrms, 2 baths, muraled livng rm, den, fp, formal dining, eat-in-kitchen, w/w carpet, full bsmt w/patio doors. \$54,000. 929-8313.

MIDDLE ISLAND - Townhouse, 4 bedrms, 2 baths, storage area, all appl, central ac, w/w carpet, extras, clubhouse, pool, tennis court, 1 yr old. \$29,900 or best offer. 925-5457.

BLDG PLOT - Approx 1 acre, 100' x 400', fully wooded, ideally located, established community. 924-3236.

For Rent

WADING RIVER - Cozy 4-rm apt, avail Apr 1st, convenient location. \$200/mo incl. util. Janet, Ext. 2345, 929-8152 eves.

WEST INDIES - Beautiful 2 yr old colonial, fully furn, 2 bedrms, lg living rm, dining, hot water, kitchen, maid's quarters, lots more, ideally located in Dominica, long & short term lease. \$400/mo. Ext. 2470.

RANCH - 8 rms, 2 baths, central ac, elec & telephone extra, beach w/lifeguard, 2-car garage, July 1-Aug 31. \$1300/2 mos. 744-7266 after 3:30.

BELLPORT - Spacious furn rm, priv entrance & bath, linens provided, avail March 21st. \$140/mo. Cookie, 286-1688.

PATCHOGUE - 4 rm apt, kitchen, living rm, 2 bedrms, priv entrance, \$250/mo incl heat. Walt, Ext. 2907, 698-0576.

APT - 1 bedrm at Pine Hill Country Club, corner, fp, carp, dishwasher, privileges, avail May or June. 286-3333, 878-4794.

RIVERHEAD - 2 bedrm house. \$225 + util, 1 month security, 1 yr lease, no pets. 727-5621.

MIDDLE ISLAND - 10 min to Lab, roomy 4 rm apt/condo, use of clubhouse, pool, tennis courts, etc. \$300/mo incl heat. Ext. 4017, 286-0491 after 6.

Wanted

HOME - For 6 week old German Shepherd puppies, great watch dogs. Ext. 3120, 286-0641.

2 TICKETS TO CRICKET BALL - Call Ed Beardsworth, Ext. 2032 or Debu Majumdar, Ext. 2633.

HOME - Orphaned hand fed puppies for adoption, need loving care, will be small to medium sized dogs. Joe Disparti, Ext. 3284.

Classified Ad Policy

Deadline is 12 noon Monday for publication Friday of the same week.

1. The Brookhaven Bulletin's classified section may be used only by active and retired Laboratory employees.
2. All items for sale or rent must be the advertiser's property.
3. Ads for material acquired for resale in association with a full or part-time business cannot be accepted.
4. Firearms offered for sale or trade may not be brought on site.

5. Ads not carried because of space restrictions will be held for publication in the next issue.
6. Ads are run only once and must be resubmitted if they are to be repeated.
7. Ads should be restricted to 20 words or less and typed or printed on the form provided, and must bear the employees signature.

- For Sale: Auto & Auto Supplies
 For Sale: Boats & Marine Supplies
 For Sale: Miscellaneous

- Wanted
 Carpools
 Lost & Found
 Services

Check the heading applying to your ad.
Print or type your ad in 20 words or less.

Ads concerning property for sale or rent cannot be accepted on this form. Special Real Estate Ad forms are available at the Office of the Brookhaven Bulletin, Room 111, 40 Brookhaven Avenue.

Employee's Signature..... Life No..... Ext.....

Send to: Brookhaven Bulletin, Building 460, 40 Brookhaven Avenue (Ext. 2345).