

The Village Courier



national accelerator laboratory

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CONSIDER USE OF NAL LINAC, BOOSTER FOR CANCER THERAPY

A proposal has been submitted to study the use of the NAL linac and booster for cancer therapy. This proposal, with a number of investigators from many leading medical institutions in the Chicago area, as well as NAL participants, was submitted to the National Cancer Institute of the Department of Health, Education, and Welfare in October.

The use of protons for cancer therapy is not new. NAL's director, Dr. Robert R. Wilson, pointed out many of the advantages of using protons as early as 1946 in an article in the journal "Radiology." However, research in this field has developed slowly due to the lack of time on accelerators of sufficient energy to achieve the required penetration of the protons into deep tissue.

Interest in this use at NAL began last spring with a widely quoted paper by Louis Rosen, of the Los Alamos Scientific Laboratory, at the Particle Accelerator Conference in Chicago. Dr. Rosen discussed the application of particle accelerators to other fields than physics research. Professor Lester Skaggs, of the University of Chicago and the Argonne Cancer Hospital, a distinguished scientist in medical physics, was stimulated by this talk to begin discussions with NAL staff members looking toward the use of our accelerator.

An advantage of NAL is that patients could be drawn from the whole Chicago area. The metropolitan-area population of 8 million can be expected to produce 24,000 cancer patients per year, of whom half, or 12,000 will need some kind of radiation therapy. There are seven medical schools in the area, all interested in this possibility for treatment.

Most radiation therapy has been carried out with X-rays or electron beams. Heavy particles like protons offer an advantage over X-rays or electrons in that the radiation dose can be localized much better at the site of a tumor, so that the radiation is concentrated where it is needed and does not inflict as much damage on healthy tissue on the way to the tumor. Protons have been used for cancer therapy with significant success for some time, notably at Berkeley, Harvard, and in Uppsala, Sweden. The NAL linac is busy as an injector for the main accelerator only about one-fourth of the time and could produce an ample proton beam in the remaining three-fourths of the time.

There is considerable interest now in evaluating the relative effectiveness of protons, heavier ions and pi-mesons for therapy. It is possible that NAL could provide a facility for a pion beam as well as a proton beam through the use of the booster.

Dr. Skaggs sponsored an area-wide meeting in August to organize the effort. The chiefs of radiotherapy of each of the seven medical schools responded and all are actively supporting the project. A symposium



...(L to R) Miguel Awschalom, Radiation Physics, Donald E. Young, who directed development of NAL's Linac, and Professor Lester Skaggs, of the University of Chicago, discuss cancer therapy unit proposal during recent meeting at NAL...

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Photo by Tim Fielding, NAL

CONSIDER USE OF NAL LINAC, BOOSTER FOR CANCER THERAPY (Continued from Page 1)

was held at the Laboratory on December 4, jointly sponsored by the American Association of Physicists in Medicine, the Metropolitan Association of Radiation Therapists, and NAL, with over 130 participants discussing their experience in heavy-particle therapy.

There is considerable interest in the possibility of cancer therapy at NAL. The proposal to NCI, which has Professor Skaggs as principal investigator and 15 NAL and area scientists and doctors as participants, asks for funds to carry out a study of the desirability and feasibility of such a project and to establish what equipment and facilities would be needed. A review board from NCI will visit NAL in February.

Among physicians and scientists in the Chicago metropolitan area who have expressed interest in supporting the proposal are: Jaques Ovadia, Ph.D., Director, Medical Physics Section, Dept. of Radiation Therapy, Michael Reese Hospital, Associate Professor of Medical Physics, Dept. of Radiology, University of Chicago; Melvin Greim, M.D., Professor of Radiology, Director Chicago Tumor Institute, University of Chicago; Frank Hendrickson, M.D., Chairman, Dept. of Therapeutic Radiology, Rush Presbyterian-St. Lukes Hospital, Professor, Rush Medical College; Edwin Liebner, M.D., Professor and Acting Chairman, Dept. of Radiology, University of Illinois; William Moss, M.D., Director, Therapeutic Radiology, Chicago Wesley Memorial Hospital, Professor, Northwestern University School of Medicine; James J. Nickson, M.D., Chairman, Dept. of Radiation Therapy, Michael Reese Hospital, Professor of Radiology, Dept. of Radiology, University of Chicago; R. Perez-Tamayo, M.D., Professor of Radiology, Director of Therapeutic Radiology, Dept. of Radiation Therapy, Loyola Stritch School of Medicine; S. Stefani, M.D., Chief of Service, Dept. of Therapeutic Radiology, Hines V.A. Hospital, Professor of Radiology, The Chicago Medical School; Warren Sinclair, Ph.D., Director, Division of Biological and Medical Research, Argonne National Laboratory, Professor of Radiobiology, Dept. of Radiology, University of Chicago.

S.A.T. TESTS FOR U.R.A. SCHOLARSHIP DEADLINE MARCH 1

Seniors in high school who are children of NAL employees and who plan to apply for U.R.A. scholarships for college expenses for the Fall of 1972, are reminded by Charles Marofske, Personnel Manager, that S.A.T. tests must be taken at the earliest possible date. The application deadline is March 1, and S.A.T. scores must be received by April 1 so that final decisions will not be held up.

For further information, call Mildred Meyer, Ext. 396.



....The annual NAL Christmas Dance held on December 17, 1971 at the Villa Olivia Country Club was a big success. Some four hundred and forty employees and their wives, husbands, girl or boy friends enjoyed the buffet dinner and evening of music. The above photos show a few of the happy faces at the dance....

FILM ANALYSIS FACILITY WINS
CHRISTMAS DECORATION AWARD!!

The "Award for Best 1971 Christmas Decoration" is certainly well deserved by the group who decorated the Film Analysis Facility. Karen Schmidt, Judy Dill, Dawn Chartrand and Annette Albano accepted the plaque for the Film Analysis Facility from Marilyn Paul of Research Services.

There were not many entries in this year's contest--the 4th annual--but all those entered were beautifully done.

Congratulations!!



ARGONNE CREDIT UNION SPONSORS COMPETITION

Miguel Awaschalom, Radiation Physics, a member of the Argonne Credit Union's Board of Directors, has urged NAL employees to take part in the credit union's effort to enhance its image. Three competitions with three prizes are being sponsored by the union's Publicity and Education Committee, of which Awaschalom is a member. The competitions are:

First: A Name. Is the "Argonne Credit Union News and Views" the best name for the monthly bulletin which the union is developing?

Second: A front page design is needed. Is the drawing of the Credit Union building the most inspiring format for the front page? Can you draw a better one?

Third: Cartoons dramatizing the services rendered by the credit union or cartoons that warn about questionable and expensive business practices to unwary borrowers.

Prizes will be one \$25 savings bond to the winner in each competition. All members may enter as often as they please in any or all competitions. The deadline is Friday, January 21. If you have questions, call Ralph Wagner, Ext. 324.

FILM SOCIETY TO PRESENT ITALIAN COMEDY

The NAL Film Society will sponsor another film on Friday, January 21, 1972, in the Village Barn at 8:00 p.m. Tickets at \$1.00 each will be sold at the door.

This film is an Italian comedy entitled "Seduced and Abandoned." It received a Best Actor award at the Cannes Film Festival and the Italian Academy Award for the Best Director. It is a brilliant comic-satire on life in Sicily. Don't miss it!

LABORATORY HOLIDAYS FOR 1972

<u>Event</u>	<u>Date Observed</u>	<u>Day</u>
New Year's Day 1972	December 31, 1971	Friday
Memorial Day	May 29, 1972	Monday
Independence Day	July 4, 1972	Tuesday
Labor Day	September 4, 1972	Monday
Thanksgiving Day	November 23, 1972	Thursday
Day after Thanksgiving	November 24, 1972	Friday
Christmas Eve	December 22, 1972	½ day Friday
Christmas Day	December 25, 1972	Monday
New Year's Eve	December 29, 1972	½ day Friday

The floating holiday for 1972 will be an optional date at the discretion of each employee. The employee must give his supervisor two weeks advance notice of the day selected.

NALREC PLANS TRIP TO CANDLELIGHT THEATRE

NALREC has planned a Theatre Party, to see "Fiddler on the Roof" at the Candlelight Dinner Playhouse, in Summit, Illinois, on Saturday, February 12, 1972.

This production of "Fiddler on the Roof" has had nothing but praise. Many people say they have enjoyed it as much or more than the Loop production. Lee Pelty, who plays Tevye, received Chicago's "Best Actor of the Year" award for this role. The show has fantastic universal appeal, each nationality feeling the story applies to its own history and traditions. The Sholom Aleichem story of Tevye, the poor dairy farmer, his five dowryless daughters and the conditions under which they live present almost insuperable problems, but as solution follows solution, some sad, some hilariously funny, one becomes more and more absorbed.

Dinner will begin at 9:30 p.m., the musical goes on at 10:45 p.m. \$11.00 per person includes dinner, tips, and bus transportation from NAL Village and back. For tickets and information call Jim Snow, Chairman, Ext. 775, or Barb Schluchter, Ext. 701.

NAL RADIO CLUB WILL SHOW MOVIE: "Hams Wide World" on Monday, January 10, at Noon and again at 5:00 p.m. in the NAL Curia. Everyone is invited.

NAL ENGAGEMENTS....

Glenys Smith, R.N., First Aid, is sporting an engagement ring received on Christmas Day. It is from Stan Orr, of Plant Engineering. The wedding is planned for March.

Wedding bells will also be ringing for Carolyn Noble, Accelerator Section, and Bob Vanacek, Plant Management. Carolyn received her ring for Christmas and Bob is sporting a cast on his right leg as a result of a skiing accident. Congratulations and condolences in that order!!

NAL CLOSES WILSON ST. TO PUBLIC: Signs have been posted stating that the road is legally closed. The action has been taken one year after NAL published its intention to close Wilson Street when alternate routes for traffic in the vicinity of the Laboratory were opened to the public. Work on the experimental area at Wilson Street and McChesney Road have made driving in the area hazardous. The signs posted at the intersections of Wilson and Kirk Roads and of Wilson and Joliet Roads suggest alternative routes.

CLASSIFIED ADS

FOR SALE - 16" portable Black and White Zenith TV. A-1 condition. Completely checked out by TV service man. \$60. Call Elsie, 231-8270.

FOR SALE - Filter Queen vacuum cleaner. Good condition w/attachments. \$100. Call 668-1552.

FOR SALE - 3-wheel Harley Davidson #45. Needs work. Contact Harry McQuinn, Ext. 555, from 8-4:30 p.m. or John Roberts, 879-2270 anytime. Make offer.

FOR SALE - Aluminum Christmas tree, \$5; High Chair, \$5. Frank Mehring, Ext. 501.

FOR SALE - '58 Buick Roadmaster, best offer over \$75. Call Dominick Carullo, Ext. 555.

FOR SALE - '67 Olds Cutlass Supreme, 2 dr. Hdtp., one owner, good condition, best offer. R.Martin, Ext. 457.

GIVE AWAY - To good home. 1 year pedigree collie (black and white) housebroken. Is very good with children. Call Bob Kocanda, Ext. 728.

TO SUBLET - 3 bedroom apartment, for approximately 6 months. Available February 1. Must be family of four or more. All utilities paid. Stove, refig. furnished. \$170/month. Kathy, Ext. 324.

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