THE CANCER NEWSLETTER

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BREAST CANCER REPORT TO THE PROFESSION SUDDENLY IS A REPORT TO THE NATION; TREATMENT PROGRESS NOTED

The timing was ironic, with overtones of tragedy for yet another of the Nation's first families. Nathaniel Berlin, director of NCI's Div. of Biology & Diagnosis and chairman of the Breast Cancer Task Force, had for months planned a "state of the art" report to the scientific community on detection and treatment of breast cancer. Date for the report–Monday, Sept. 30–was scheduled weeks ago.

Then Betty Ford, the wife of President Gerald Ford, underwent a radical mastectomy two days before the meeting, after a lump in her right breast was found to be malignant. Suddenly Berlin's report took on an aura of major national significance. Reporters and other non-scientists jostled for seats with the professional observers in the NIH

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In Brief

DEVITA CHANGES HIS MIND, AGREES TO HEAD TREATMENT DIV.; CONTRACTS CHIEF CARL FRETTS MOVES UP TO NIH

NCI STAFF turnover continues with these key developments: Vincent T. DeVita Jr., who first refused an offer to head the Div. of Cancer Treatment (*The Cancer Newsletter*, Sept. 27), changed his mind and accepted; Carl Fretts, chief of the Research Contracts Branch, moved up to become chief of the Div. of Contracts & Grants at NIH, replacing Alex Smallberg who retired. DeVita, who was head of the Medicine Branch, was reluctant to leave clinical work, gave in when NCI Director Rauscher agreed he could continue some of his clinical activities. Rauscher, who feels he has been reasonably successful in building a young, top-flight staff, especially hated to lose Fretts. Richard J. Colton is acting contracts chief while Rauscher looks for a permanent replacement. Another possible departure in the near future: Nathaniel Berlin, director of the Div. of Biology & Diagnosis, who may take his retirement and accept an offer outside government. Berlin is the last of the pre-Rauscher era division directors. . . . **WATCH FOR RFPs** coming out soon from the Cancer Control Program for training of mammography technicians. . . . **GRANT APPLICATION** deadlines will be strictly enforced, the NIH Div. of Research Grants has warned. DRG study sections have been notorious for ignoring established deadlines, opening the door to favoritism charges. No more; from now on, those that miss the deadline for one reviewing period will be held over to the next. Submitting sketchy outlines by deadline time, then following with major additions and revisions, won't work, either. . . . **JUNKETS**, or even the appearance of a junket, must be avoided by NCI advisory groups with their meetings, symposia, etc. One group had scheduled a meeting for Bermuda but had to change it to San Juan, Puerto Rico, at HEW's insistence. Evidently Puerto Rico is not considered junket territory.

RADICAL MASTECTOMY UNNECESSARY, L-PAM INCREASES SURVIVAL, REPORT SAYS

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clinical center auditorium, with the overflow watching on closed-circuit TV in a smaller theater.

Berlin told *The Cancer Newsletter* last spring that he felt it was too early for the Task Force's tentative findings to receive public recognition, and that the various studies should have another year or more first. But the results were already being widely circulated and NCI decided that an official report was necessary.

Any chance that the report would be limited to the profession with little public awareness disappeared with Betty Ford's illness. The result may be that the dramatic, although tentative, findings of the Task Force will be forced by public pressure into medical practice–prematurely, some feel.

The two most important conclusions involved treatment:

–Radical mastectomy, involving removal of the breast, underlying pectoral muscles and axillary lymph nodes, is no more effective than total mastectomy (removal of the breast alone) for patients with operable disease limited to the breast. For patients whose cancer has spread to the axillary nodes, radical mastectomy was no more effective than total mastectomy combined with postoperative radiotherapy.

–Chemotherapy, involving the drug L-phenylalanine mustard (L-PAM), administered to patients with positive axillary nodes, resulted in recurrence in premenopausal women for only one of 30, whereas 11 of 37 recurred after surgery alone. The normal recurrence rate for patients with positive axillary nodes is 75% after 10 years.

The latter study admittedly will not be proven out until the patients involved build up survival time. The findings, however, were so convincing that investigators recommended it be terminated for the premenopausal group–in other words, patients who obviously can be helped by the drug should not be denied the treatment.

Bernard Fisher of the Univ. of Pittsburgh, chairman of the National Surgical Adjuvant Breast Project (NSABP), has directed a large clinical study involving surgeons, radiotherapists and pathologists at 34 institutions attempting to determine the optimal treatment for primary breast cancer. This study, supported by NCI grants and the Breast Cancer Task Force, has involved 1,700 patients.

For patients with operable disease limited to the breast, the study compares radical mastectomy, total mastectomy and total mastectomy plus radiation therapy to the chest. For patients whose disease involves the breast and axillary nodes, radical mastectomy is compared with total mastectomy combined with postoperative radiotherapy.

The results after two years indicate that in each group the various options are essentially equivalent. Thus, for disease limited to the breast, a total mastectomy with or without radiation therapy is equivalent to the radical procedure. For patients with disease in the breast and axillary nodes, total mastectomy with postoperative radiotherapy is equivalent to radical mastectomy. While the long-term follow-up data necessary to obtain survival characteristics are not yet available from this study, similar trends from early stages of other studies have been borne out by long term follow-up and are thus considered predictive.

The major impact of these results, NCI said, is to provide scientific information for practicing surgeons to determine the most effective type of operation for each patient and, in addition, to set the stage for planned clinical studies of less surgery (segmental mastectomy), a procedure where only part of the breast is removed.

Historically more than 50% of breast cancer patients die with metastatic disease. Previous studies have indicated that the presence of cancer in the axillary nodes carries a dire prognosis. More than 75% of patients with one or more positive nodes will have recurrent disease at 10 years and most of the patients will die of their disease. Thus, the presence of axillary gland involvement predicts the presence of metastatic disease.

To combat this clinical situation a second study, sponsored by the Breast Cancer Task Force and done jointly by the NSABP and members of the Eastern Cooperative Oncology Group and the Central Oncology Group, is investigating the addition of postoperative systemic chemotherapy in women who have modified or radical mastectomy and shown to have positive axillary nodes.

To date 250 patients have been entered on a double-blind randomized study receiving either a placebo or L-PAM for five days by mouth every six weeks for two years.

The study has been underway about 24 months and involves 37 institutions. Data concerning the results of the study to date, presented by Fisher, have been analyzed independently by Carole Redmond of the Univ. of Pittsburgh and Marvin Zelen of the Statistical Laboratory of the Univ. of New York at Buffalo.

The data indicate that the recurrence rate is significantly reduced for women receiving the L-PAM. This was particularly striking for women who were premenopausal where only 1 of 30 patients receiving L-PAM recurred, whereas 11 of 37 recurred after surgery alone. The investigators have recommended that the study be terminated for the premenopausal group of patients because of these dramatic results.

For postmenopausal patients the failure rates are also reduced in the L-PAM treated group, but not as markedly. For this reason, that part of the study in-

volving postmenopausal women is under further review.

Paul P. Carbone, NCI acting clinical director and chairman of the Breast Cancer Task Force Treatment Committee, also reported that similar studies employing combination chemotherapy regimens are being done at the National Cancer Institute of Milan, Italy, the Mayo Clinic, UCLA, and the Cleveland Clinic. The study at Milan has accrued 100 patients who are receiving the three-drug combination of cytoxan, methotrexate and 5-fluorouracil. Results are consistent with the L-PAM study.

The importance of these postoperative chemotherapy trials is that patients with breast cancer and axillary node metastasis can receive drug therapy to treat the subclinical metastases before the become clinically obvious and lethal. From two previous clinical studies and from experimental data in animals, this combined approach of surgery and chemotherapy offers the best chance of survival.

The L-PAM treatment is a simple program with minimal side effects and can be widely used. With these encouraging results Fisher and the NSABP investigators are planning an additional study using a two-drug combination and a combination of L-PAM with C. Parvum, an immunostimulant.

Carbone reported preliminary results from several other studies of patients with metastatic disease indicating that combinations of drugs are more effective than single drugs. In a study sponsored by the Eastern Cooperative Oncology Group a three-drug combination produced 53% response (shrinkage of tumor by 50% or more) as compared to 19% with L-PAM alone. Patients receiving the combination regimen had more complete responses and longer survivals than patients treated with the single agent.

Similar improved results with combination therapy are reported in a study by David Ahmann and his coworkers at the Mayo Clinic. John Horton, the Albany Medical College of Union Univ., and Thomas Dao, Roswell Park, have reported improved results with the combination chemotherapy of cytoxan, fluorouracil and prednisone as compared to adrenalectomy and adriamycin alone.

Douglass Tormey and co-workers at NCI have demonstrated improved results by incorporating adriamycin into a three-drug combination using cytoxan and fluorouracil.

In several ongoing research studies, immunostimulants such as BCG and C. Parvum are being added to chemotherapy to determine whether treatment results can be improved.

While management of the advanced disease patients has improved, the likelihood of eliminating all cancer cells is highest when the numbers of cancer cells are small. This is most likely to occur when the patient first presents with cancer. An objective of the Breast Cancer Task Force is to develop therapeutic programs utilizing effective local treatment in combination with safe, easily administered systemic anticancer drug combinations.

Removal of the ovaries in premenopausal women and the removal of the adrenals or pituitary are forms of breast cancer therapy to which approximately 30% of women respond. Administration of androgens or estrogens can also induce tumor regression. These responses occur in 20 to 40% of patients.

William McGuire, of the Univ. of Texas at San Antonio and member of the Breast Cancer Task Force Treatment Committee, described the role of hormone receptors (specific cell proteins) in predicting response to these endocrine treatments for breast cancer. The laboratory determination of whether an individual patient has a hormone receptor can be used to predict whether she will respond to hormone therapy. The importance of this test is that it differentiates between patients who would benefit from hormone therapy and those who would not. These latter patients can then be placed on other therapies without delay.

Approximately 50% of biopsies of breast cancer are found to contain the receptors. The response rate to endocrine treatments by patients with positive endocrine receptor (ER) tests was markedly higher than that in ER negative patients. For ER positive patients 52% responded compared to 4% responses in patients who were ER negative. Thus the estrogen receptor assays can be helpful to predict the results of endocrine therapy and increase the likelihood of predicting response.

The challenge of the future is to incorporate endocrine therapy into the treatment strategy with chemotherapy for those patients who are ER positive, NCI said. For the ER negative patients two approaches appear possible. These patients can be treated directly with non-hormonal methods obviating the delay of less effective measures. Secondly, there may be ways to uncover or alter the hormone receptors to make them sensitive.

Several studies are being sponsored by the Breast Cancer Task Force to combine hormonal approaches with chemotherapy. Two studies, one at the Mayo Clinic and the other through the Eastern Cooperative Oncology Group, are studying ways to combine combination chemotherapy with oophorectomy in premenopausal women. Another approach being done at Emory Univ. by Charles Vogel combines estrogens with a three drug combination of cytoxan, fluorouracil and adriamycin.

Tormey, chief of the NCI Medical Breast Cancer Service, reported on studies of biologic markers--substances found in the blood or urine that correlate with the presence of tumor. Ideally, levels of these substances should correlate with the amount of tumor in the patient and change in parallel with the response of tumors to therapy.

Out of eight biologic markers tested, three, human

chorionic gonadotrophin (HCG), carcinoembryonic antigen (CEA), and a transfer RNA nucleoside (N2-N2-diemthylguanosine), were found to be present in abnormal amounts. Using these markers, 63 patients (97%) in a group of 65 were found to have abnormal levels of at least one of these markers. In a group of 15 post-operative patients found to have positive nodes, 10 (67%) had elevated levels.

The report went into advances being made in early detection.

Early detection of breast cancer before it has spread to other parts of the body increases a patient's chance for long-term survival and cure, the report said. Patients whose axillary lymph nodes are free of cancer (negative nodes) at the time of breast cancer diagnosis have a 5-year survival rate of about 75%, and about 65% of these patients are alive after 10 years. In contrast, women with breast cancer in the axillary nodes (positive nodes) have a 5-year survival rate of about 50%, and only about 25% will live 10 years.

In the U.S. at present, patients have negative, cancer-free nodes in about 45% of newly diagnosed breast cancer cases. A real hope that this rate may be improved–with a corresponding increase in survival rates–comes from the breast cancer screening demonstration program sponsored jointly by the American Cancer Society and NCI. William Pomerance, chairman of the Breast Cancer Task Force's Diagnosis Committee, reported that about 75% of the women with breast cancer detected so far by the screening program had negative nodes.

The ACS-NCI program involves 27 breast cancer screening projects, where up to 270,000 women of ages 35 years and older will be screened annually with a physical examination, X-rays (film mammography or xeroradiography), and thermography. The first projects established began screening women in mid-1973; all 27 centers will be operating by the end of 1974. About 75,000 women have been screened to date. When comprehensive data have been compiled, it is expected that about 775 breast cancers will have been detected among these women, a rate of 10.5 cases per 1,000 women screened, or about 1,000 cases per 100,000 women screened.

The combination of physical examination and X-ray mammography in breast cancer screening has been shown to decrease breast cancer death rates. A group of 31,000 women screened for breast cancer by the Health Insurance Plan of Greater New York in a NCI-supported study have had a one-third reduction in breast cancer deaths over a 5-year follow-up period as compared with 31,000 women given their usual comprehensive medical care in their medical groups. One-third (44 out of 132) of the breast cancers detected in the screening program were found by X-ray mammography before the tumors were large enough to be detected physically. Only one of these 44 women died of breast cancer during the 5-year period, indicating that early detection led to substantially more effective treatment.

The report concluded that:

–Less than radical surgery is acceptable for the treatment of primary breast cancer.

–Subclinical metastasis can be successfully treated.

–Treatment advances coupled with progress in earlier detection and diagnosis should lead to significant improvements in cure rates and survival.

The report also included presentations on epidemiology, virology and experimental biology.

CONFEREES STILL MEETING ON HEW MONEY BILL, REPORTEDLY GIVE NCI $691 MILLION

Senate and House conferees on the HEW appropriations bill were still meeting at press time and had not yet completed the job of working out their differences. *The Cancer Newsletter* learned that the conferees had decided, tentatively at least, on a figure of $691 million for NCI.

Instead of the traditional 50-50 split of the difference between House and Senate versions of NIH appropriations, the conferees reportedly compromised at one-third. That decision came after they had received a message from President Ford that splitting all differences down the middle would leave the total Labor-HEW bill higher than he would accept.

The House had voted $660 million for NCI, the Senate $775 million. Half the difference would have given $707.5 million to NCI. The Administration budget proposal for NCI in fiscal 1975 was $600 million. NCI received $589 million in fiscal 1974.

Conferees reportedly applied the one-third of the difference formula to all NIH appropriations.

TOBACCO INDUSTRY SCIENTISTS ARE PROSTITUTES, SHUBIK CHARGES

Philippe Shubik, a member of the National Cancer Advisory Board from Eppley Institute who is NCAB's most outspoken critic of smoking and the tobacco industry, startled a meeting of NCI's Tobacco Working Group with a blast against the group's industry-employed scientists.

TWG is made up of NCI staff members, representatives of other government agencies and non-government scientists including some who work for cigarette manufacturers.

Addressing his remarks to the industry representatives, Shubik said, "It shocks me that 20 years later (after the health hazards of cigarettes had become evident) you have not joined the community of men. You will go down in history denying facts well-known to the scientific community.

"When I see people die of a preventable disease," Shubik continued, "and I know what caused it, I get very angry. It offends me when people who are scientists and who know better, offer the arrant nonsense that cigarettes are not a health threat."

Shubik said that TWG operates on the premise that tobacco smoking is the primary cause of lung cancer and contributes significantly to cardiovascular and pulmonary disease. "I doubt that anyone in this room really feels that is not the case," he said.

William W. Bates, director of the Liggett & Myers research department, replied, "That premise may be true for NCI and Tobacco Working Group staff, but it is not true for this member."

Shubik continued the debate with another industry scientist in the hall after the meeting. "Won't you admit that scientists who disagree with you have a right to their opinions, Phil?" the industry representative asked.

"Not when you are paid to reach that conclusion," Shubik replied angrily. "That makes you a prostitute. It is unconscionable, that 70,000 people a year will die–at least that many--as a result of using the products your companies make, and you, as a scientist who knows better, won't speak out."

The group listened to presentations from representatives of other U.S. organizations and foreign governments engaged in tobacco research, including:

–Edward Martel, of the National Center for Atmospheric Research in Boulder, Colo., and Edward Radford, professor of environmental medicine at Hopkins. They contend that studies have shown that radioactive polonium 210 is absorbed by tobacco leaves either from fertilizers applied to the soil or through the atmosphere, is ingested by smokers and builds up in the lungs and could be the carcinogenic factor in lung cancer. They did not receive much encouragement because their findings have not been duplicated in other studies.

–John Wyatt, of the Univ. of Kentucky, where a program financed primarily by a statewide cigarette tax is attempting to develop tobacco varieties containing less tars and nicotines. Wyatt said progress is being made but that commercial use of new varieties is still several years away.

–Frank Fairweather, of the United Kingdom Dept. of Health. England is trying to develop a tobacco substitute, with cellulose and other material, without much success. The prospect exists that a mixture of 30% artificial material with tobacco in cigarettes might be acceptable to smokers.

RFPs AVAILABLE

Requests for proposal described here pertain to contracts planned for award by the National Cancer Institute, unless otherwise noted. Write to the Contracting Officer or Contract Specialist for copies of the RFP. Some listings will show the phone number of the Contract Specialist, who will respond to questions about the RFP. Contract Sections for the Cause & Prevention and Biology and Diagnosis Divisions are located at: NCI, Landow Bldg. NIH, Bethesda, Md. 20014; for the Treatment and Control Divisions at NCI, Blair Bldg., 8300 Colesville Rd., Silver Spring, Md. 20910. All requests for copies of RFPs should cite the RFP number. The deadline date shown for each listing is the final day for receipt of the completed proposal unless otherwise indicated.

RFP NCI-CN-55174-03

Title: *Comprehensive cancer centers communications network*

Deadline: *Oct. 31, 1974*

The strategic plan of the National Cancer Program states that "Research advances as well as existing knowledge must be translated into effective action through communication to the public and to the health professions." Comprehensive cancer centers are expected to exert a significant impact in the community on cancer prevention and care through effective demonstration and outreach programs.

The NCI Cancer Control Program will support each comprehensive cancer center's efforts to provide informational and educational programs in cancer. This procurement is directed specifically to NCI-designated comprehensive cancer centers, and multiple awards will be made.

Funds will be available through contracts to support the core staff of information/education offices and to finance development of the minimal materials and resources required to conduct the offices' activities. It is expected that the centers' communications staffs will participate in the development of communications materials needed to serve the total National Cancer Program in cooperation with the Cancer Control Program.

The contractor shall establish a communications office, or other focal point, for providing the services specified below, as well as for planning additional education and information programs. Staff of–or available to–this office might include information officer, health educator, communications specialist, lay counselor.

The office shall maintain up-to-date information about:

–National, regional, state, and local programs, services, agencies organizations, and health institutions concerned with cancer.

–Occurrence, cause, prevention, safeguards, detection, and warning signals of cancer.

–Diagnosis and patient management.

–Professionals available for consultation on specific areas of expertise in the center, the community, the region, and at NCI.

–The tumor profile and relevant demographic information about the region served by the center.

The communications office shall establish and make known a two-way service, such as a toll-free number, providing cancer information to both the public and health professionals. Depending on the local situation, this can include participation in an ongoing institutional or voluntary cancer information program.

The office shall utilize appropriate media and mechanisms for assuring that cancer control messages reach target audiences. Services provided and information disseminated by each Center must have the benefit of guidance, supervision, and approval by appropriate medical and communications professionals.

Centers communications staff members will serve as one of NCI's resource development groups and will meet at workshops to allow centers communications staff to present their information projects to one another, to learn of outreach efforts of other groups, to consult on common problems, and to develop cooperative solutions to these problems.

Centers communications staff will identify the need for educational materials. NCI's Cancer Control communications will coordinate the production, exchange and distribution of material, as well as information. Films, pamphlets, telephone tapes, radio and television public service announcements and news features that can be "personalized" by each center will be developed, often in collaboration with various centers.

This RFP will support the core staff of communications offices and will finance development of the minimal materials and resources required to conduct the office's activities. While funds awarded as a result of this RFP may not duplicate existing funding, they may be used to expand or improve ongoing efforts.

Contract Specialist: Donald Broome
Cancer Control
301-427-7984

RFP NCI-CB-53888-31

Title: *Systems analysis and information services resource for the International Registry of Tumor Immunotherapy*

Deadline: *Nov. 1, 1974 (Note: A bidder's conference will be held Oct. 11 in Conference Room 418C, Landow Building, 7910 Woodmont Ave., Bethesda, Md., from 9-11:30 a.m.)*

Clinical research in the area of cancer therapy has evolved into a highly sophisticated science requiring the integration of diverse aspects of medicine, biostatistics, pharmacology, basic sciences and ethics. There are increasing numbers of clinical protocols relating to a large variety of tumors evaluating an even larger variety of therapeutic modalities. This has resulted in informational lags at the level of the research clinician and the general physician.

The ability of the research clinician to design protocols for testing new therapies is compromised if the most recent information regarding existing protocols and their status is unavailable or difficult to obtain. Information services oriented toward clinicians involved in developing and conducting clinical protocols would include systematically acquiring, analyzing and providing information regarding the content and interim findings of ongoing protocols, recent toxicity developments, results of recently completed protocols, and opportunities for verbal interaction with the investigators pursuring such protocols.

The International Registry of Tumor Immunotherapy is an attempt to provide analyzed integrated information regarding clinical protocols in immunotherapy for systems analysis, data management, and information services support which will:

–Develop and implement standardized data accumulation and storage methods for characterizing ongoing clinical protocols in immunotherapy and for updating stored information about these protocols at regular intervals. This would require extensive interaction with investigators in the field and development of software for information systems which would be acceptable to investigators and compatible with the information storage functions of the registry.

–Provide capacity to accumulate, analyze, summarize, index, update and cross-reference reports of ongoing protocols in immunotherapy submitted to the registry by clinical investigators.

–At periodic intervals prepare and distribute a compendium describing such protocols to investigators participating in the registry.

–Maintain, with capacity for regularly updating, an address file of investigators and other clinicians interested in immunotherapy. This must include a capacity for cross-referencing according to items such as investigator's interest, geographical location, activity in immunotherapy, status of any protocol registered, etc.

Contract Specialist: Robert S. Townsend
Biology & Diagnosis
301-496-5565

RFP NCI-CB-53889-31

Title: *Studies of immune response of mice and rats to tumor associated antigens*

Deadline: *Nov. 13, 1974*

NCI is interested in a facility for performance of in vivo and in vitro assays of immune response to tumor associated antigens in mice and rats to murine sarcoma virus, gross virus-induced leukemias, and to mammary tumor virus and spontaneous mammary tumors. This project will necessitate a close working relationship with NCI staff. Animals for experimentation will be provided by NCI. Proposals to be submitted should comply with the following specifications:

–Provide facilities for maintaining up to 3,000 mice and 150 rats to be used in experiments at the contract facility and at NCI.

–A well-trained immunologist, experienced with both in vivo and in vitro assays for tumor immunity in rodents, must be available by the time of the initiation of the contract.

–Perform in vivo and in vitro studies of cell-mediated and humoral immune response of mice to murine sarcoma virus, by the following assays: de-

tection of antibody by 51Chromium release cytotoxicity assay and by isotopic antiglobulin technique; study of cell-mediated immunity by 51Chromium release assay, and by in vivo adoptive transfer; in vivo transplantation protection studies. Provide immune cells and sera from mice inoculated with MSV to Project Officer.

–Perform studies of cell-mediated immune response to virus-induced mouse leukemias by I125 IUDR assay and perform in vivo experiments, transplantation protection and adoptive transfer.

–Study transplantation protection induced in C-3HF and C3H mice by immunization with spontaneous mammary tumors. Produce syngeneic antisera for use by Project Officer.

–Perform adoptive transfer experiments in rats, against a Gross virus induced lymphoma.

–The organization must have immediately available, complete facilities for the transport of specimens and animals to and from NCI and to perform the needed immunological assays and tissue culture procedures.

–The facility must be within 30 minutes normal driving distance from the NCI Bethesda campus.

Contract Specialist: Robert S. Townsend
Biology & Diagnosis
301-496-5565

RFP NCI-CB-53890-31

Title: *NCI histocompatibility testing center*
Deadline: *Nov. 13, 1974*

Activities required under this RFP:

Task 1: HL-A phenotyping, about 2,500 samples–about 800 typings of patients with solid tumors; about 100 typings of patients with malignant melanoma; approximately 1,000 typings of patients with acute lymphocytic leukemia and their family members; approximately 100 typings of established tissue culture cell lines (mostly lymphoblasts), approximately 500 miscellaneous typings.

HL-A antigens tested for will include all WHO recognized HL-A antigens, all workshop specificities, and as many 3rd segregant series antigens as possible. Antisera must be provided by the contractor. The assay system shall by a lymphcyte complement dependent cytotoxicity test.

Task 2: Maintenance of a panel of cells well defined for HL-A antigens–The contractor will provide a panel of at least 100 lymphocytes well defined for HL-A antigens for purposes of assessing serums for anti-HL-A and other antibodies. This panel shall have the less frequent specificities well represented.

Task 3: Assessment of serums for antibodies to HL-A and other antigens by the lymphocyte cytotoxicity assay–Approximately 100 serums from patients with malignant melanoma undergoing therapy as directed by the melanoma therapy protocol of the immunology, medicine, and surgery branches, NCI, will be assayed in four dilutions against the normal panel mentioned for the presence of antibody, HL-A specificity, if any, and the titer; approximately 25 serum samples per month in three dilutions will be assayed for the presence of HL-A alloantigen reactivity against the panel. These serum samples will be tested against all the acute leukemia cell samples provided for HL-A typing. These serum samples will also be tested against 25 lymphocyte cell samples per week provided by the project officers; approximately 100 miscellaneous serums will be tested for antibody activity and specificity against the panel.

Task 4: Mixed lymphcyte cultures–Although not an absolute requirement, ability to perform the following MLC assays will be considered favorably in awarding the contract–The contractor shall perform about 400 MLC reactions between lymphocytes from blood samples provided by the project officer and a defined panel of donors accessible to the contractor; the contractor shall perform approximately 100 MLC reactions between pairs of blood samples provided by the project officers; consideration will be given to the contractor's ability to type for defined alleles at the MLC locus using a panel of MLC homozygous donors. Willingness and ability to keep up with new developments in this field, and to add new alleles to the panel as they are found will be desirable.

Contract Specialist: Robert S. Townsend
Biology & Diagnosis
301-496-5565

RFP NCI-CM-53774-15

Title: *Administrative and technical support services*
Deadline: *On or about Nov. 18, 1974*

NCI will negotiate a new contract to provide administrative and technical services as support to the Div. of Cancer Treatment staff in the organization and conduct of conferences, seminars and meetings on various aspects of cancer chemotherapy.

Such support services will include such tasks as arranging for travel and accommodations for non-government personnel, arrangement of scientific meetings including logistics and on-site support, preparation of background materials for meetings (slides, charts, etc.), preparation of final documents, reproduction and dissemination of reports covering clinical and scientific data (meeting proceedings, clinical brochures, annual reports, etc.) and providing transcription and editing services. The contractor will not be responsible for generating any scientific or technical data but, to be effective, its key personnel should be exeprienced in the areas of (1) visual reproduction, (2) publication techniques (including taping, transcription and editing), (3) scientific and chemical terminology and procedures and (4) the organization and conduct (including mass mailing list facilities) of large conferences. The contractor's facility should be located near and easily accessible (preferably within a 30 mile radius) to the NIH campus at Bethesda, Md. It is anticipated that this RFP

will be issued o/a 18 Oct 74.
Contracting Officer: Sam Marrone
Cancer Treatment
301-427-7463

RFP NCI-CN-55180-04

Title: *Prototype network demonstration projects in head and neck cancer*
Deadline: *30 days after RFP is issued, sometime in October*

The Cancer Control Program is soliciting proposals to plan and implement a network of cooperating hospitals for cancer control activities related to the diagnosis, staging, treatment and rehabilitation of patients with all stages of carcinoma of the head and neck (primary presentation to metastatic disease).

These cooperating hospitals must represent a reasonable geographic area, for example, a part of a city, a city, several cities, or a state. The number of hospitals or organizations cooperating in the network will not be limited, but evidence will be required that formal arrangements exist or can be developed. Letters demonstrating institutional commitment will be required with the proposal and a formal constitution or similar document must be developed during the planning stage.

The initial planning phase will be the responsibility of the contractor. After this phase, protocols for demonstration projects will be developed jointly by the NCI and the contractor. A network must be capable of annually entering at least 200 patients with all stages of head and neck cancer into new control activities. Offerors will be required to provide evidence of proficiency in clinical, technical and biostatistical procedures. In addition, offerors must possess adequate clinical, administrative and biostatistical personnel and facilities to perform this effort.
Contracting Officer: Hugh E. Mahanes Jr.
Cancer Control
301-427-7984

RFP NCI-CN-55182-05

Title: *Demonstration of cancer rehabilitation facilities and/or departments*
Deadline: *Probably early December*

The Cancer Control Program is soliciting proposals for projects to develop a workable model system of rehabilitation services for cancer patients. The system shall provide for the education of rehabilitation team personnel and the development of new approaches to the rehabilitation of cancer patients.

Prospective offerors must have at least a basic operational rehabilitation department, including adequate space, physical facilities, and equipment to provide active cancer rehabilitation. Equipment for making prosthetic devices and access to a wide range of medical specialties as well as vocational, psychological, and social rehabilitation services are required.

The contract program is primarily directed toward major medical centers, teaching hospitals, and cancer centers. This RFP will be issued in early November 1974.
Contracting Officer: Hugh E. Mahanes Jr.
Cancer Control
301-427-7984

RFP NCI-CN-55183-05

Title: *Integrated Cancer rehabilitation services*
Deadline: *Probably early December*

The Cancer Control Program is soliciting proposals for projects to develop and demonstrate the effectiveness of integrated cancer rehabilitation services in community hospitals. This effort includes selection and training of coordinators and other staff, definition of patient selection criteria, and program evaluation.

It is anticipated that a total of 350 new cancer patients per year will be required over a 24 month period. Prospective offerors must have access to trained rehabilitation professionals, staff and facilities for training of supporting personnel, and the ability to develop a patient information system meeting the needs of this project.

This contract program is primarily directed toward community and nonspeciality hospitals. This RFP will be issued in early November 1974.
Contracting Officer: Hugh E. Mahanes Jr.
Cancer Control
301-427-7984

RFP NCI-CN-55184-05

Title: *Training programs for maxillofacial prosthodontists and maxillofacial dental technicians*
Deadline: *Probably early December*

The Cancer Control Program is soliciting proposals for the development and implementation of comprehensive programs to upgrade and supplement the training of maxillofacial prosthodontists and laboratory technicians with respect to specialized techniques and practices used in the rehabilitation of patients with cancer of the head or neck.

Training must be provided with an accredited program. Offerors must have or have access to the necessary physical facilities and teaching staff, as well as accessibility to prospective trainees. This RFP will be issued in early November 1974.
Contracting Officer: Hugh E. Mahanes Jr.
Cancer Control
301-427-7984

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