THE CANCER LETTER

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AACI ASKS NCI TO RECONSIDER DROPPING CCPDS SUPPORT, FIND NEW MECHANISM TO FUND CENTER OUTREACH EFFORT

The Assn. of American Cancer Institutes has called on NCI to reconsider the decision to end support for the Cancer Center Patient Data System and to consider development of a new mechanism or use of an existing one to fund cancer center outreach activities.

AACI members approved resolutions on those issues at the organiza-

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In Brief

WILLIAM LONGMIRE REPLACES FISHER ON CANCER PANEL; TALBOT URGES ORGANIZATIONS TO AVOID POLARIZATION

WILLIAM LONGMIRE JR., former chairman of the Dept. of Surgery at UCLA, has been appointed to the President's Cancer Panel, succeeding Bernard Fisher. Longmire, 68, holds the position of distinguished physician at the Sepulveda VA Medical Center in Los Angeles and is professor of surgery at UCLA. He was department chairman from 1948-1976. Fisher's term expired in February but he continued to serve until replaced. The three year terms of Harold Amos and Chairman Armand Hammer expire in 1983 and 1984, respectively. . . . "**WE MUST** avoid polarizing our relationships with other organizations and with NCI," Timothy Talbot, president of the Assn. of American Cancer Institutes, said at last week's semiannual meeting of the organization. "Nothing will succeed in the National Cancer Program unless we work together. We are in danger of some fragmentation. We need to give attention to a search for common threads of interest.". . . **AACI AND UICC'S** Committee on International Collaborative Activities will host a meeting of cancer center and institute directors Sept. 7 in Seattle prior to opening of the 13th International Cancer Congress. The meeting will start at 1 p.m. in the ballroom of the Westin Hotel. Contact Edwin Mirand, AACI secretary-treasurer, 666 Elm St., Buffalo, N.Y. 14263. An invitation-only reception will follow the meeting. . . . **APPROVALS COMMITTEE** of the American College of Surgeons Commission on Cancer has reaffirmed approval of 88 new and renewal applications for ACOS approved hospital cancer programs. Gerald Murphy, AACI liaison member with the commission, said that consideration is being given to reducing the time and extent of cancer patient followup by hospital registries. Also, some hospitals are having difficulty with the requirement that all breast cancer cases be recorded according to the TNM system. Those difficulties are being resolved and the requirement stands, Murphy said. . . . **WARNER-LAMBERT** will open its $4 million Cancer Chemotherapy Laboratories in Ann Arbor July 15. The new facilities will bring together 65 scientists and researchers for investigation of promising new anticancer compounds, the company said. Bruce Chabner and Emil Frei will be guest speakers for the occasion.

INCLUDE NON-PEER REVIEW CLINICAL RESEARCH IN EVALUATION, AACI ASKS

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tion's semiannual meeting at Ohio State Univ. last week. They also urged NCI to include in cancer center core grant guidelines provisions to take into account high quality non-peer reviewed clinical research when those grants are reviewed.

The Board of Scientific Counselors of NCI's Div. of Resources, Centers & Community Activities had voted to end the CCPDS contracts upon expiration, the majority and last of them in July, 1983 (***The Cancer Letter,*** May 14). The vote came on the recommendation of a Board committee, chaired by Barbara Hulka, which had reviewed CCPDS to determine if it was meeting requirements set out for the program. The most serious deficiency, according to the committee, was that the system was not being utilized enough for inter-institution studies.

John Laszlo, director of clinical programs at Duke Univ. Comprehensive Cancer Center, reporting to AACI members on the situation, suggested that the DRCCA Board review did not afford cancer center CCPDS staff or center directors sufficient opportunity to participate, that a substantial number of inter-institution studies have been made or are under way, and that various changes in the program and lack of stability in NCI leadership helped delay full implementation.

Jerome Yates, DRCCA associate director, pointed out that the division Board had warned the centers two years ago that CCPDS would have to be better utilized in inter-institute studies. "The committee felt that it wasn't being used as a unique resource and that we were supporting primarily intra-institute activities and therefore support more properly should come from the core grant," Yates said.

"Was any effort made to inform centers that more was expected?" AACI President Timothy Talbot asked. "Or did it just get decided? I'm upset, that here we have an NCI inspired program, one that was slow developing, then boom, down goes the gavel."

"I don't consider eight years sudden," Yates said, referring to the time since the program was started in 1974.

"Our feeling is that there was not sufficient time in the implementation phase," Richard Steckel, director of the UCLA Jonsson Comprehensive Cancer Center, responded. He acknowledged that the warning on inter-institution studies was made known to centers.

Steckel offered a resolution "conveying our strong concern to NCI that the program, initiated as a joint venture between NCI and centers, has been interrupted without appropriate consultation with the centers." It was approved unanimously.

A second resolution asking NCI to continue funding "basic elements of CCPDS," including the statistical analysis and quality control center in Seattle, until more careful consideration can be given to the issue was determined implicit in the first resolution and thus was dropped.

NCI's contribution to the program is $3.3 million a year. The Hulka committee recommended that if centers continue CCPDS with funds from other sources, NCI should support the SAQC to help coordinate the activities and provide quality control.

The decision by DRCCA, upon the advice of its Board, to discontinue cancer control outreach grants for centers in favor of supporting Cancer Control Research Units and Cancer Control Science Programs has left the future of outreach programs in jeopardy. C.J. Cavalaris, director of cancer control at the Ohio State Univ. Comprehensive Cancer Center, offered a resolution asking that AACI and NCI staff "explore mechanisms to fund center outreach activities, to enable communities to continue cancer control activities."

The resolution also asked that $100,000 a year be set aside for evaluation, and that the mechanism be outside center core grants. Although some center directors suggested that the salary of an associate director for cancer control should be an appropriate expenditure from the core grant, Cavalaris said "some center directors do not want that, so we thought we would leave it flexible." The resolution was approved without dissent.

Michael Brennan, president of the Comprehensive Cancer Center of Metropolitan Detroit, asked Yates if there had been any change in the National Cancer Advisory Board's requirements for recognition as a comprehensive center. He pointed out that one of those requirements had been cancer control outreach activities.

"If there is a need, possibly this should be rethought," Yates said. "With the shrinking resources we have, center directors should ask themselves if they want to go back to funding (outreach). It's up to you people to let us know what you want, and then help us determine what is possible."

David Yohn, director of the Ohio State Comprehensive Cancer Center, briefly described the outreach program there which "gets some expertise in oncology" into areas of the state with minimal health facilities. "We see that effort threatened by the change in emphasis. Let us continue in some of our demonstration efforts."

Steckel called attention to the question of non-peer reviewed clinical research being excluded from consideration by site visitors in reviewing core grants.

Core grant guidelines adopted last year require that eligibility for those grants be based on the amount of NCI peer reviewed research being done at applying institutions, plus cancer related research supported by other NIH institutes, and American Cancer So-

ciety supported research. Steckel pointed out that a substantial amount of clinical research is conducted at centers that is not supported by the federal government or ACS. The issue is not that this research be included in the amount to determine eligibility but that it be considered by reviewers in the overall evaluation. "Could not publication of this research in journals, transmitted to reviewers, be additional elements in the review?" Steckel asked.

"Your point is well taken," Barbara Bynum, director of NCI's Div. of Extramural Activities, said.

"We're not quibbling with peer reviewed research in establishing the base," said Richard O'Brien, acting director of the USC Comprehensive Cancer Center. "My impression is that people doing meritorious research not supported by NCI or ACS is not considered."

Dennis Cain, chief of the Grants Review Branch in DEA, agreed that the diversity of centers "should not be limited. There may be differences among reviewers. Also, who is a 'member of a center'? That has not been defined."

Steckel said that the rules "show no actual proscription against consideration of non-peer reviewed research" but that reviewers do seem to consider peer reviewed activities "as more meritorious. That should be reconsidered, if the core grant is to be based on centerness and not on components."

"There's no proscription against use of shared resources by non-peer reviewed investigators," said Robert Cooper, director of the Univ. of Rochester Cancer Center.

Talbot had a word of caution. "There is a feeling among some that institutions with core grants have an unfair advantage. One scenario could be, if we give support on the basis of unreviewed investigators, a huge explosion."

"Here's another scenario," Laszlo said. "The ideal core grant, where the director is invisible, is not beating on everyone, and the investigators are doing top quality work published in the finest journals."

BCDDP FINAL REPORT: 3,557 CANCERS FOUND, 90 PERCENT BY MAMMOGRAPHY

The final report of the controversial Breast Cancer Detection Demonstration Project, a five year screening of more than 280,000 women for cancer of the breast, has revealed that nearly 90 percent (88.9) of the 3,557 breast cancers uncovered by the project were found by mammography, as compared to 56 percent by physical examination.

Mammography alone (in cases involving negative findings by physical examinations) identified 41.6 percent of the cancers, and physical examination alone (in cases involving negative findings by mammography) identified 8.7 percent.

Results of the study will be announced to more than 400,000 physicians in the July/August issue of *Ca,* an American Cancer Society journal for clinicians.

The BCDDP began in 1973 under joint sponsorship of the American Cancer Society and the National Cancer Institute. It soon ran into severe criticism from several sources and for a variety of reasons. Some critics charged that mammography subjected women to radiation doses which could cause more cancer than the technique would find. That charge led to more careful control of the procedure and steady reduction in doses to the point where the increased risk now is almost negligible.

Other criticism was aimed at the study design which, critics say, makes long term followup and analysis difficult or impossible, and at the cost, about $50 million over the project's five years.

The project also took some heat when a few patients diagnosed with cancer who subsequently underwent mastectomy were found, following pathology review, not to have had malignant tumors. That led to debates over the issue of "minimal cancers" and what to do about it.

With all the problems and criticisms, ACS considers BCDDP successful, in that it demonstrated the value of mammography, particularly for certain groups.

More than 280,000 women were enrolled at 29 detection centers in 27 regional population centers, and more than half of them (51.7 percent) were screened annually for cancer of the breast for five consecutive years.

Nearly one third of the cancers (32.4 percent) detected by the BCDDP centers were noninvasive or, when invasive, less than one centimeter in size.

Mammography scored especially high in discovery of the smallest cancers—those which response most favorably to treatment. It alone accounted for 59 percent of noninvasive cancers which were identified, as well as 52.6 percent of invasive cancers smaller than one centimeter in size.

The BCDDP findings confirmed those of a breast cancer screening project started by the Health Insurance Plan (HIP) of Greater New York in 1963, in which 62,000 women were enrolled. However, in the HIP study only 33.3 percent of the cancers were detected by mammography alone.

The BCDDP report suggests that the difference in results is most likely due to technological changes in the quality of mammography during the intervening years.

An accompanying statement in *Ca,* representing the view of the American Cancer Society's National Task Force on Breast Cancer Control, describes mammography in combination with physical examination of the breast as "the only cancer screening technique with documented proof of survival benefit in asymptomatic women over the age of 50. . . . There is evidence that screening with mammography can detect very small, localized breast cancers in women 35 to

49 years old, which in turn suggests the possibility of better survival rates in this age group as well."

The Task Force comment continues:

"In the last few years, the diagnostic capabilities of mammography have improved considerably, while at the same time the radiation dose to the breast has been greatly diminished; currently, the procedure can deliver less than one rad to the mid-breast. The result is that with today's technology, judiciously used and in trained hands, the likelihood of developing radiation-induced breast cancer from mammography is small.

"Meanwhile, the existing level of undetected breast cancer in certain segments of the U.S. population is high. Therefore, the potential life saving benefit through early detection by mammography is considerable. . . .

"The American Cancer Society firmly believes that any risk, no matter how small, should be reduced as much as possible, and that radiographic equipment should deliver the lowest dose of radiation consistent with producing an optimal diagnostic image."

The Task Force said that the mid-breast radiation dose for typical exposures used in mammography at the BCDDP centers, as reported in 1979, averaged 0.37 rad for xeroradiographic units and 0.04 rad for film screen units.

The Task Force arrived at four conclusions:

1. "Advancing age is the most important risk factor. Most breast cancers occur in women over the age of 50. In this age group there is definitive proof that screening for breast cancer lowered the death rate by 30 percent and that mammography and physical examination of the breast accounted for the reduction. It is imperative that screening using both modalities become a routine part of an annual medical examination of women over the age of 50 whenever feasible."

2. "Since the symptomatic woman with a dominant mass or persistent discomfort, nipple discharge, or other symptoms and findings may have breast cancer, all such women should have a thorough breast examination including mammography and any other diagnostic study needed to determine if cancer is present."

3. "Under all circumstances, the mammographic technique used should produce the greatest possible detail and resolution, with the lowest amount of radiation needed to provide high quality images. Mammography should be performed and interpreted by experienced, well trained individuals using modern, carefully monitored equipment and thorough physical examinations. Techniques should be changed as new knowledge and improved technology warrant."

4. "Physicians must be aware of the limitations of mammography and should remember that the x-ray study of the breast is a complementary procedure and most valuable ally in evaluating a breast problem. When physical examination reveals findings sufficient to advise biopsy, a biopsy should be performed even in the presence of a mammogram described as normal."

The BCDDP report was prepared by Larry Baker of Kansas City, associated professor in the department of community health at the Univ. of Kansas Medical Center, and chairman of the 13-member Project Data Management Advisory Group which analyzed and interpreted the data. The report was commissioned by NCI.

The American Cancer Society's 25-member Task Force on Breast Cancer Control is chaired by Edward Scanlon, a past national president of the Society and chief of surgery at Evanston, Ill., Hospital.

Some of the detection centers are continuing operations without NCI support now that the demonstration phase of the project has ended.

The BCDDP center at Columbia, Mo., headed by Ned Rodes, director of the cancer center there, not only has continued breast screening but has added three other screening procedures.

More than 90 percent of the women originally enrolled in the program for breast cancer screening are continuing to come in for annual examinations, Rodes told ***The Cancer Letter.*** All of them now receive Pap tests, rectal exams and hemocult tests, in addition to breast examinations.

"We're finding about one cancer in every 100 patient visits," Rodes said. "Most of those are in the very early stages, and we're very pleased about that."

Examinations were free in BCDDP, but the Columbia project now charges women $20 per visit, which pays part of the costs. The rest comes from state funds and other sources.

Rodes disagrees with the ACS recommendation that annual Pap tests are not necessary and that once every three years is sufficient for women with consistently negative results. "We're finding cervical cancer in women who were negative the previous year," Rodes said. "It doesn't cost much and has zero risk, so why not do it, especially when the woman is in your office anyway?"

ACS BREAST EXAM RECOMMENDATIONS

For women without symptoms, the American Cancer Society recommmends the following guidelines for periodic examination for cancer of the breast:

1. Women 20 years of age and older should perform breast self-examination every month.

2. Women 20 to 40 should have a physical examination of the breast every three years, and women over 40 should have a physical examination of the breast every year.

3. Women between the ages of 35 and 40 should have a baseline mammogram.

4. Women under 50 should consult their personal physicians about the need for mammography.

5. Women over 50 should have a mammogram every year when feasible.

6. Women with personal or family histories of breast cancer should consult their physicians about the need for more frequent examinations, or about beginning periodic mammography before age 50.

NCI DESCRIBES HOW IT WOULD SPEND MONEY SOUGHT IN 1984 BYPASS BUDGET

The narrative describing how NCI would spend the money being requested in the 1984 fiscal year bypass budget, publication of which started last week, continues. The work described here, and last week, is all under the broad category of research. Resource development, construction, and cancer control categories will be published next week.

E. Tumor Biology—Increase of $13,584,000 over the 1983 estimate of $114,898,000.

—Using various experimental approaches, including DNA recombinant technology, the molecular signals that control the expression of specific genes in normal and cancer cells will be compared and evaluated.

—Changes will be examined in the location or movement of genes on chromosomes that are characteristic of different cancer types. This will be done using somatic cell hybridization, sophisticated chromosome staining procedures and DNA recombinant technology.

—Large quantities of polypeptide factors will be produced to investigate various aspects of tumor cell behavior (e.g., interferon, human growth hormone, epidermal growth factor, and other biological response modifiers).

—Monoclonal antibodies will be developed and used to study biological molecules that influence tumor behavior and to characterize molecules typical of various tumor types.

—Studies will continue of the role of various effectors, including tumor promoters, vitamins, hormones and biological response modifiers, in the modulation of growth and/or differentiation of cancer cell types (e.g., melanoma, neuroblastoma, breast carcinoma, leukemias, teratocarcinoma, etc.).

—Identification of genes and gene products from normal and malignant human cells will be attempted to find those which contain transforming activity.

—Effort will continue to identify, characterize and evaluate the physiological significance of various factors that stimulate and inhibit the neovascularization of tumors (i.e., tumor angiogenesis factors, tumor angiogenesis inhibitors).

—Development of better culture and animal model systems will continue, looking for models specifically designed to study the invasive and metastatic processes.

—The roles of intercellular matrix components, cell surface molecules, intracellular structures and various enzymes in the malignant invasive process will be investigated.

F. Immunology—Increase of $8,666,000 over the 1983 estimate of $71,981,000.

—Studies of the interaction between T-cells, B-cells and their various subsets and accessory populations, including natural killer cells and macrophages, will be continued.

—Studies will continue on mechanisms by which various tumors and/or tumor products facilitate escape of tumor cells from immunologic destruction including the role of antigenic variants and/or modulation in the metastatic process.

—Studies on the structure of antibodies will continue, including the role of gene rearrangement in the synthesis of immunoglobulin subclasses and the functional role of idiotype.

—Mechanisms of cell mediated immune cytotoxicity in mice and in humans will be studied, including the use of biological response modifiers (for example, interferon) to augment this activity.

—Investigations of the mechanisms involved in spontaneous killing of human tumor target cells by lymphocytes will be expanded.

—The role of "armed" monocytes/macrophages, i.e., those which have been activated by antigenic challenge, in protective antitumor immune response will be studied.

—Studies of the role of the immune response in growth of naturally occuring tumors of low immunogenicity will be continued.

—Studies of genetic control of the immune response to tumors in animal models and in humans will be supported.

—Development of radioimmunoassays for antigens associated with various tumor types, to aid in classification and/or diagnosis of tumors will be continued.

—In addition to determining the potential for antibody therapy of tumors, the feasibility will be studied of coupling toxins, drugs or radionuclides to monoclonal antibodies for the purpose of developing specific and effective delivery of these agents to tumor cells in model systems and in vitro.

—Work on correlation of various parameters of immune status with prognosis and/or disease progression in cancer patients will be stressed.

—Identification and characterization of new human tumor antigens requires a combination of clinical, immunological and biochemical investigations. Program projects involving a multidisciplinary team approach focusing on these and other such complex problems appears to be a promising approach; they will be encouraged.

G. Diagnostic Research—Increase of $5,540,000 over the 1983 estimate of $37,716,000.

—The long term screening studies in lung and colorectal cancer will continue through the followup

phase. Preliminary analysis will be initiated.

—Work will be stressed in developing noninvasive techniques to image various heavy metal elements associated with tumor identification, notably the presence of minute quantities of calcium.

—Investigation of the relationship of benign disorders to eventual development of malignant tumors will be expanded (especially in breast cancer).

—Studies in multiple simultaneous tumor markers will be continued to increase specificity, and new approaches sought based on preliminary results of current investigations.

—The application of fluorescein labeled hormones (coupled with fluorescence microscopy) in the detection of hormonal receptors will be expanded.

—Evaluation of diaphanography (a transillumination technique which uses a beam of strong light to find tissue abnormalities) for the diagnosis of breast cancer will be initiated.

—Use of immunologic stains will be exapnded in providing classification of human tumors beyond the possibilities offered by morphology and histochemical stains.

—Special stains will be examined for localization of micro-tumors in lung tissue. A chemical derivative of hematoporphyrin is already under investigation.

—Studies involving single photon tomography will be initiated to determine whether or not it is as effective as positron computed tomography.

—Efforts to develop large area detector arrays, imaging sensors and associated front-end electronics to provide greater sensitivity, speed and resolution for x-ray imaging in total body radioisotope scanning will be developed.

—The development and establishment of diagnostic imaging research centers will be encouraged to: (1) carry out advanced research in imaging; (2) to serve as training centers for professionals in diagnostic imaging research; (3) to perform evaluative clinical comparisons among multiple new diagnostic modalities; and (4) to develop guidelines and protocols for early use.

—Studies to develop improved contrast agents for x-ray, ultrasound and nuclear magnetic resonance (NMR) imaging will be encouraged.

—Studies involving basic research on factors influencing NMR relaxation times which may affect diagnostic differentiation between normal and malignant tissues (in NMR images) will be encouraged.

—As a result of recent studies demonstrating that NMR has unusual diagnostic possibilities without the use of ionizing radiation, development of NMR imaging systems for improved detection and diagnosis of breast cancer and pancreatic cancer will be supported; comparative clinical studies of NMR and computerized tomography (CT) will be initiated.

H. Preclinical Research—Increase of $14,503,000 over the 1983 estimate of $149,969,000.

—In vivo and in vitro investigations of fundamental problems in the area of biological response modifiers will continue in an effort to discover and develop new modifiers and gain a better understanding of their action.

—There will be an increased effort in the area of lymphokines/cytokines in an effort to isolate and purify them for therapeutic trials.

—Efforts will be expanded on the production of biologic response modifiers through genetic engineering, thus enabling a higher quality product at a substantially reduced cost.

—Investigations will continue into the role of high-LET radiation in cancer treatment by conducting preclinical investigations with high-LET radiations and preliminary studies of new high-LET radiation delivery systems.

—Investigations will continue into the role of radiation modifiers in cancer treatment by conducting preclinical studies to develop new approaches using radiosensitizers, radioprotectors and hyperthermia.

—Studies will be initiated in the area of radiation toxicology, including problems related to the late effects of radiation on normal animal tissues.

—Renovation of space in the clinical center will be undertaken to provide facilities for the Radiation Oncology Branch to investigate both in vitro and in vivo basic mechanisms of radiation effects and their modification by pharmacologic agents.

—A coordinated effort will be carried out to develop small and large animal models for the study of toxicities encountered with combinations of radiation, radiation modifiers, and chemotherapeutic agents.

—Work will continue on the exploration and development of new chemotherapeutic agents beginning with the acquisition of promising new compounds through the screening, evaluation and eventual preparation for clinical evaluation.

—Efforts to improve upon known chemotherapeutic agents through molecular manipulation (i.e., second generation drugs), such that efficacy will be enhanced while decreasing undesirable side effects will continue.

—Studies to evaluate the basic molecular biology of tumors, and studies of tumor immunology, endocrinology, oncogenic viruses and cellular kinetics as related to fundamental problems of treatment will be expanded.

—Accumulation of sufficient data to test the correlation between the in vitro stem cell assay and mechanical in vivo screening systems will continue.

—Studies will be initiated to test the correlation of the in vitro stem cell assay with clinical results. Such studies may lead not only to faster and less expensive preclinical screening of new chemotherapeutic agents, but to more effective use of drugs in early clinical trials. These in vitro assays will be used to

target early clinical trials against sensitive classes of malignancy.

—Investigations will continue into the role of combined modality therapy by conducting preclinical studies involving combinations of chemotherapy, surgery, radiotherapy and immunotherapy.

—Studies on the prevention of acute and chronic adverse toxic effects of antitumor agents as well as on their mutagenic and carcinogenic potential will continue.

—The potential use of renal capsules of conventional mice in testing the growth of human tumors will be developed further.

—Studies involving human T-cell lymphomas, which recently were discovered to contain certain viruses, will continue.

—Research will be encouraged in the development of models for the therapy of metastases.

—Trans-institutional cooperative agreements will be instituted to pool national experts in medicinal chemistry, biochemistry, biology, molecular biology, pharmacology, etc., into coordinated new anticancer drug discovery groups which will work in concert with the NCI preclinical drug development program.

—Studies will be initiated to determine whether human tumors carried as transplantable xenografts but tested for drug responsiveness in vitro and in vivo retain the drug response profile characteristics of the fresh surgical explant.

—New developments in the area of the mechanisms of membrane transport will be further explored to reveal information on the role of transport in drug cell interactions and to further basic investigation that might be employed to enhance chemotherapeutic regimens.

—The search for drugs which selectively sensitize malignant cells to chemical therapeutic agents rather than to both normal and malignant cells will continue. Simultaneously, a search for drugs that selectively protect normal tissues will continue.

—Studies to improve the therapeutic ratio of most clinically effective antimetabolites will be initiated to help insure substantially better treatment programs for cancer victims.

—To obtain more and better natural products, current fermentation product acquisitions will be expanded to include such countries as Japan, Sweden, Italy, Spain, Germany and France.

—Studies will be initiated on the design and symthesis of "pro-drugs," altered forms of active drugs intended to overcome problems of poor stability or solubility. Such compounds are intended to deliver the active drug safely and directly to the tumor site.

—New congeners of existing drugs with a broader spectrum of antitumor activity and greater therapeutic potential for clinical testing will continue to be developed.

—Efforts in intraoperative radiotherapy with primates to assist our understanding of long term complications with single dose radiation therapy will be expanded.

—Studies will be encouraged on the development of immune histochemical approaches using newly developed tumor specific monoclonal antibodies on human tumor specimens, for clinical-pathological correlations.

—A new DNA research laboratory facility will be established in order to isolate and characterize human tumor drug resistant genes.

—A new study will be initiated on the prevention and treatment of CNS malignancy in subhuman primates, which may have potential application in the treatment of childhood brain tumors.

I. Clinical Treatment Research—Increase of $13,738,000 over the 1983 estimate of $153,829,000.

—Efforts will continue to facilitate the implementation of geogragraphically oriented multimodal cooperative groups, with emphasis on the areas of radiotherapy, surgery, pathology and statistics in addition to chemotherapy.

—A multidisciplinary study will be initiated on childhood neuroblastoma, which would combine the interrelated efforts of cell biology, biochemistry and immunology, to develop novel therapeutic strategies.

—Support will continue for the initial clinical evaluation of new chemotherapeutic agents as they are developed by the Drug Development Program and new biological agents as they are developed by the Biological Response Modifiers Program. These new agents will be evaluated not only for their own unique action against various malignancies but also for their effectiveness when combined with other chemotherapeutic and immunologic agents or with radiation treatment.

—The clinical study of high priority biological response modifiers such as interferon and thymosin will continue.

—The development and evaluation of monoclonal antibodies as carriers for toxic drugs in an attempt to increase the specificity of tumor therapy will also be continued.

—A coordinated effort will be initiated to stimulate the clinical investigation of each radiation modality or combination thereof, in order to establish more rapidly their value in the treatment of cancer and their integration into multimodality treatment regimens.

—Further investigations will continue into the role of bone marrow transplantation as an effective means of circumventing bone marrow toxicity caused by chemotherapy. Also, a trial of bone marrow transplantation for the consolidation treatment of acute myelocytic leukemia will be initiated.

—Two new chemoprevention projects recently initiated will be continued. They are the study of retinoids used topically or orally and applied to patients at high risk for the development of cervical

cancer; and oral retinoids used in patients with high risk for the development of skin cancer.

–Supply of tetrahydrocannabinol to hospital pharmacies to help prevent nausea and vomiting in chemotherapy patients will continue.

–Phase 1 clinical trials for pediatric patients, recently initiated as a result of new evidence demonstrating that children, in general, show considerably enhanced tolerance to drugs, will continue.

–Studies to further define the role of antiestrogen therapy in the adjuvant treatment of breast cancer will continue.

–Studies will be supported on an integrated effort by radiotherapists, physicists and radiobiologists to define the advantages and disadvantages of the treatment of tumors in major anatomic sites with various types of particle beams.

–Support will continue for the development of fast neutron therapy facilities and it is anticipated that clinical treatment studies will be initiated in the upcoming year.

–The multi-institutional phase 1 evaluation of hyperthermia equipment to artifically increase a patient's body temperature (as an adjunct to treatment with drugs or radiation) will continue.

–Studies on the development and testing of alternate high-LET therapy systems using different therapy systems components will be expanded in order to accelerate the evaluation of various approaches from a cost benefit standpoint.

–A new collaborative effort to develop guidelines for the use of interstitial irradiation, alone or in conjunction with external beam radiotherapy or hyperthermia, will be initiated.

–Resources will continue to be devoted to more effective monitoring of clinical research protocols, concentrating on new chemotherapeutic agents, including more rapid reporting of toxicities, and the verification of clinical trial results by on-site review of data.

–Studies will continue on the development of hybridoma antibodies and their evaluation in the clinical setting as tools for the treatment, diagnosis and estimation of prognosis for breast cancer and other neoplastic diseases.

–Methodologies to better evaluate the response of prostatic cancer to treatment will be defined and additional therapy modalities in prostatic cancer (new agents and procedures for their therapeutic effectiveness) will be evaluated.

–The establishment of systems for management and analysis of phase 2 data on investigational new drugs for (1) proper resource allocation decisions; (2) FDA regulatory requirements; and (3) proper drug development decisions, will continue.

–Research in the area of computerized treatment planning for precise radiation dosimetry optimization will continue.

–Known and established clinical drugs will continue to be studied clinically to induce more effective, less toxic, and longer lasting responses

–A clinical resource group focusing primarily on single agent phase 2 studies to evaluate new chemotherapeutic agents will be initiated.

–Increased quantities of T-cell growth factor will be obtained to aid in the development of new approaches for adoptive clinical immunotherapy using autologous sensitized human lymphoid cells.

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, citing the RFP number. NCI listings will show the phone number of the Contracting Officer or Contract Specialist who will respond to questions. Address requests for NCI RFPs to the individual named, the Blair Building room number shown, National Cancer Institute, 8300 Colesville Rd., Silver Spring, Md. 20910. RFP announcements from other agencies reported here will include the complete mailing address at the end of each.

RFP NCI-CO-33857-41

Title: *Technical writing, publication distribution, and telephone answering services in response to cancer related inquiries*

Deadline: *Aug. 30*

NCI is soliciting proposals for a small business firm to provide communications services to support the Office of Cancer Communications.

This proposed procurement is a total set aside for small business concerns. A small business, for purposes of this procurement, is a firm, including its affiliates, that is independently owned and operated, is not dominant in the field of operations in which it is bidding on government contracts, and its average annual receipts for its preceding three fiscal years do not exceed $2 million.

This project is for a three year period. Offerors will be limited to those firms having operating facilities within a 35 mile radius of Bethesda, Md., as daily person to person contact is required.

A preproposal conference is scheduled for July 21.

Contracting Officer: Patricia Rainey
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