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NIH CONSIDERING LONGER GRANT AWARD PERIODS; CCIRC'S NEW BOSSES CRACK DOWN ON CONFERENCES

NIH Director Donald Fredrickson, agreeing with NCI and other NIH executives that grant awards should be for longer periods than has been the practice in recent years, is in the process of developing an NIH-wide position that would encourage the institutes to make longer awards.

(Continued to page 2)

In Brief

MORE MONEY, NOT REORGANIZATION, IS NEEDED FOR CLINICAL RESEARCH, PAUL CARBONE ARGUES

"THE REAL ISSUE is that we need to get more money into clinical research, but the feeling at NCI is that problems can be solved by reorganizing," commented Paul Carbone, chairman of the Eastern Cooperative Oncology Group, on the proposal for reorganizing the Cooperative Group Program. The proposal to reorganize the groups along regional lines will be submitted to the Div. of Cancer Treatment Board of Scientific Counselors at its review of clinical trials next March by DCT Director Vincent DeVita (*The Cancer Letter,* Oct. 20). Carbone, who heads the Cooperative Group Chairmen's Committee (and also is director of the Univ. of Wisconsin Comprehensive Cancer Center), does not agree with DeVita that multiple membership by institutions in cooperative groups creates difficulties or leads to competition for patients and other resources. "It may be an administrative problem for NCI, but it isn't any problem for us." DeVita emphasized that he would offer the reorganization proposal only as a suggestion. . . . **CORRECTION:** DCT will not require 50-50 matching for construction funds to be awarded through contracts to the successful proposers for establishing two additional neutron therapy facilities (*The Cancer Letter,* Oct. 27). The equal matching requirement adopted by the National Cancer Advisory Board applies to construction grants; requirements for the local share in the contracts will be spelled out in the RFP. . . . **GERALD MURPHY**, director of Roswell Park Memorial Institute, received the annual Heath Memorial Award for outstanding contributions to the better care of cancer patients, at the M.D. Anderson Clinical Conference last week. . . . **FATHOLLAH MOSTOFI**, chairman of the Center for Advanced Pathology at the Armed Forces Institute of Pathology, received the Joanne Vandenberg Hill award for significant research in anatomical pathology at the M.D. Anderson conference. . . . **NEW PUBLICATIONS:** "A History of Cancer Control in the United States," prepared by Lester Breslow, UCLA, under NCI contract. Single copies available free from NCI, Div. of Cancer Control & Rehabilitation, Blair Bldg. Rm 732B, 8300 Colesville Rd., Silver Spring, Md. 20910. "SEER Program: Cancer Incidence & Mortality in the U.S., 1973-76." Single copies free from Office of Cancer Communications, NCI, Bethesda, Md. 20014.

CCIRC TOLD IT CAN NO LONGER SUPPORT CONFERENCES WITH CHAIRMAN'S GRANT

(Continued from page 1)

Thomas King, director of NCI's Div. of Extramural Activities (still formally called the Div. of Cancer Research Resources & Centers), told the Cancer Clinical Investigation Review Committee this week that the proposals are included in a draft document Fredrickson has circulated to institute directors and initial review groups soliciting their comments.

The CCIRC, the study section which reviews Cooperative Group grant applications, was meeting for the first time since it was transferred back to King's division from the Div. of Cancer Treatment. The committee and the Cooperative Groups were moved to DCT in 1975 when former NCI Director Frank Rauscher decided to consolidate treatment activities in that division. David Joftes, chief of the Review & Referral Branch in DEA, made it clear the committee has a new set of bosses.

King said Fredrickson's proposals would encourage longer grant periods "based directly on the quality of the applications. It would not encourage longer support for the less meritorious applications."

Most grants are now limited to three years. Under Fredrickson's plan, individual awards could be up to five years, program projects five years, and center core grants from five to seven years.

Fredrickson had asked for comments on the proposal to be sent to him by Nov. 1. The proposal also includes suggestions for simplifying and reducing the length of the NIH standard grant application, PHS Form 398.

While the Cooperative Groups still remain under administrative control of DCT, the CCIRC, along with all other NCI grant and contract review groups, were moved into King's division. This was in line with Director Arthur Upton's policy of separating program activities from review.

Joftes told committee members what he expected of them now that the committee has been placed under his supervision.

"We understand that the job of review is to assist program. But we must never be subservient to program, because then we wouldn't serve it well. This committee has worked closely with staff. There is nothing wrong with that. But NCI has made a determination that there will be a separation of program staff and review," Joftes said.

To help CCIRC members "maintain an arms length relationship with staff," Joftes asked them to deal with staff, as well as Cooperative Group applicants, through the CCIRC executive secretary.

CCIRC Chairman Jerome DeCosse said the committee has always used the executive secretary "as the conduit to program staff and applicants."

When DeCosse suggested that a method should be worked out to keep the committee informed on contract supported clinical research, "possibly with a CCIRC B," Joftes responded, "That's a program issue. This committee is here to advise NCI on the quality of applications received from the Cooperative Groups. It's a question of program staff cooperation and coordination, to get the information to you on the totality of the program."

DeCosse raised the question "of interface between our objectives and the objectives of cancer control. We talk about quality. Quality for what? Creativity, or service to a region."

"Your first allegiance is to the quality of science," Joftes said. "But obviously that is not enough. This committee has to be concerned with the relative merit, scientifically, of the applications brought to you. The issue of quality of care is an issue the institution will have to face. I can conceive that cancer control could be added as a criterion that must be considered by this committee. An application could get a better priority score if it not only was scientifically meritorious but also added to control."

Committee members did not object to Joftes' statements and decrees, until he told them there would be no more support for general conferences from the chairman's grant.

The CCIRC, in addition to its task of reviewing Cooperative Group grants, has been charged with conducting state of the art symposia, to help update practicing physicians on cancer treatment advances. A symposium on soft tissue sarcomas is planned for 1979.

When the committee agreed to put on a symposium on Hodgkin's disease in 1980, Joftes said, "I have negative feelings about this committee supporting a general conference. NIH committees are permitted to have smaller conferences, for their own updating. But the general conferences require a separate application. . . We have a totally different idea of procedures. It is not fair, for you as a group, to fund conferences with the chairman's grant while others have to be reviewed by study sections and compete for funding."

"I challenge that," DeCosse said. "Part of this committee's function has been to support state of the art conferences. They have been very helpful."

Joftes said the chairman's grant "is on the edge of legality, and I can see you being left high and dry."

Committee member Robert Goodman said, "I don't like surprises. If there are changes from what we're used to, we ought to hear about them."

Committee member Stephen Jones pointed out that "it is hard to plan a conference one and a half years in advance, if funding is in doubt." Adding eight months to the process, the usual minimum time required to review and approve grants, "makes it incredibly more difficult," Jones said.

"Dr. Jones, you want to be judge and jury," Joftes said. He insisted a conference application could be reviewed and processed in two to three months. "Why

should conferences sponsored by this group be any different than any other conference? Appropriate procedures will have to be followed, and I'm going to insist on it."

"What's bothering us is a ponderous and capricious bureaucracy," DeCosse said.

The committee agreed to the Hodgkin's symposium, delaying from the spring to the fall of 1980 to allow more time for grant approval.

Clair White, longtime CCIRC executive secretary, announced that he was retiring from the government early next year and that this would be his last meeting. DeCosse asked if he would reconsider, but White said his decision was final. Committee members gave him a standing ovation.

DCT BOARD APPROVES RECOMPETITION OF $15 MILLION IN CONTRACT PROJECTS

NCI's Div. of Cancer Treatment will offer for recompetition in the 1979 fiscal year existing contracts which will be funded at an estimated total of $15 million during the first year of the new awards.

The DCT Board of Scientific Counselors gave its "concept approval" to all but two of the recompetitions recommended by the staff. The Board also approved sole source renewals of additional existing contracts which will be worth an estimated $3 million in the first year.

Most of the recompetitions, which will show up in RFP announcements during the year, are in the Developmental Therapeutics Program.

Developmental Therapeutics Recompetitions

Development of model systems for the therapy of human tumors grown in athymic mice.

Present contractor, Stehlin Foundation for Cancer Research. Proposed first year award, $342,000; multiple awards will be considered. This project provides the research capability to study the growth characteristics, transplantability, genotypic and phenotypic constancy, and response to selected antitumor drugs of human tumor xenografts grown in athymic (nude) mice. Its major objective is to recommend to DCT human tumor xenograft lines to be used for screening. This is the only DTP research contract offered for recompetition; all others are considered resources procurements.

Storage and distribution of chemicals and drugs used in cancer chemotherapy.

Microbiological Associates, $425,000 proposed first year award, multiple awards will be considered. The contractor is currently storing about 300,000 samples which have been evaluated by NCI.

Design and synthesis of various phosphoramides and related compounds.

Collaborative Research Inc., $94,300 proposed first year award, multiple awards will be considered. Objectives are to develop more effective chemotherapeutic agents based on an understanding of the contributions of various aspects of metabolism and comparative selectivity of cyclophosphamide; to develop phosphoramides which do not need pre-activation; to develop analogs with organ specificity and which are less immunosuppressant than cyclophosphamide and which are active against cyclophosphamide resistant tumor lines.

Isolation of antineoplastic compounds from marine vertebrates and invertebrates.

Univ. of Houston, $128,000 proposed first year award, multiple awards will be considered. There are presently 30 leads in this program which are assigned for chemical isolation of the active antineoplastic agents. These leads are from markedly different marine animals.

New fermentation research and development, antineoplastic drug acquisition, evaluation and screening.

The three present contractors are Bristol, Upjohn and Parke Davis. Total estimated for first year awards, $1.9 million. Major emphasis is in isolating unusual organisms and to ferment them in various ways to obtain new agents. Supplying those compounds of interest to NCI is essential.

In vivo screening program.

There are seven present contractors—Hazleton, Ralston Institute, A.D. Little, Battelle, Mason Research Institution, IITRI, and Jules Bordet. Estimated first year awards total $5 million. Contractors carry out testing for the prescreen in the P388 tumor test system as well as followup testing of active materials in the panel of tumor systems. Systems in the panel are the L1210 leukemia, Lewis lung, B16 melanoma, colon 30, and the CD8P1 mammary tumor. Other test systems are used when specific information is requested. Methodology studies this year have been devoted to establishment of protocols and the repetitive testing required for statistical studies to establish quality control limits and reproducibility of newer protocols and test systems. An additional development in FY 1980 will be to include as part of the in vivo screening program the mammary tumor; an existing separate contract costing $400,000 a year will be terminated.

System and related subsystems operation and maintenance of DTP biological data processing.

Value Engineering Co., estimated first year award $900,000. This contract is the sole means by which suppliers of chemical compounds are informed of the biological activity or inactivity of the compounds which they supply to DTP.

Applied mathematics and data analysis.

Arthur D. Little, estimated first year award $200,000. Provides biostatistical support to the Drug Evaluation Branch, to help in establishing parameters

and criteria of activity and toxicity in current and new antitumor screens, in formulating detailed experimental protocols for use in contract testing labs, and in maintaining testing quality control by evaluating screening methodology. The project includes tasks related to evaluation and summarization of clinical results.

Screening and detailed evaluation of antitumor agents and combined chemotherapy.

Arthur D. Little, estimated first year award $500,000, multiple awards to be considered. Main objective is to evaluate active materials to determine whether or not they are worthy of clinical trials. An analog comparison program is needed to provide DCT with rapid and well controlled comparative evaluation of analogs of clinically effective agents and promising derivatives under development.

Screening of compounds using human tumors in athymic mice.

Battelle Memorial Institute, estimated first year award $472,500, multiple awards to be considered. High priority project to develop use of human tumor xenografts as secondary screening assays, validate protocols for large scale screening, and to conduct the screening.

Production of bulk chemicals and drugs.

Monsanto Research Corp., estimated first year award $765,000, multiple awards to be considered. A major portion of the project will be preparation of kilogram quantities of materials requiring pilot plant facilities.

Preparation of radiolabeled materials.

Research Triangle Institute and Stanford Research Institute, estimated first year award $442,000. Contractors provide, by direct synthesis or commercial procurement, radiolabeled materials required by DTP.

Development and production of investigational parenteral dosage forms.

Elkins-Sinn Inc., estimated first year award $200,000, multiple awards to be considered. Provides backup freeze drying capabilities and preparation of large sterile liquid ampule batches such as PALA.

Development and production of investigational oral dosage forms.

Philips Roxane Labs, estimated first year award $100,000. Primary contract for production of solid oral dosage forms—during 1977, 1.5 million oral dosage units were produced for use in clinical trials.

Toxicological evaluation of combinations of two agent treatment modalities in animals.

Southern Research Institute, estimated first year award $335,000. Evaluates toxicological impact of an antitumor drug in combination with another modality. Future therapeutic approaches probably will encompass combinations of one drug with another chemical agent; an agent designed to modify the metabolism or disposition of the antitumor drug; a physical agent such as x-ray, microwave or infrared irradiation; immunostimulants such as BCG or levamisole; and biological response modifiers such as prostaglandins, hormones, chalones, interferons, etc.

Investigation of clinical pharmacology of potential anticancer agents.

Ohio State Univ., estimated first year award $105,000. Contractor obtains information on disposition and metabolism of antitumor agents entering phase I clinical trials.

Studies of the distribution, disposition and metabolism of antineoplastic agents.

Univ. of Southern California, estimated first year award $125,000. Contractor will obtain information on absorption, plasma clearance, distribution, plasma protein binding, metabolism and urinary and biliary excretion of agents with potential clinical usefulness. Tests to be conducted with human subjects, stressing comprehensive pharmacokinetic studies with potential predictive value, with pilot studies in animals where indicated.

Structure activity studies among anticancer agents.

Pomona College, first year award estimated $53,000. Uses LFER techniques on classes of compounds with demonstrated anticancer activity. Contractor performs necessary calculations to render this data into a form suitable for treatment by regression analysis techniques, and provides consultation to DCT staff and NCI contractors and grantees on drug design.

Preparation and purification of viral components.

Pfizer Inc., estimated first year award $289,000. Provides the Laboratory of Tumor Cell Biology with quality mammalian type-C RNA tumor viruses, including primate viruses suitable for isolation of reverse transcriptase, viral antigens, high molecular weight RNA and for the preparation of complimentary DNA. This is a support contract for Robert Gallo, who heads the lab.

The Board opposed recompetition of contracts with the Univ. of Missouri, for chemical analyses in support of the biomarker program, and the Univ. of Kentucky, for studies of terminal transferase levels in acute lymphocytic leukemia.

DCT Director Vincent DeVita told the Board that his staff was "in the middle of determining if a need exists for a central marker facility. We're asking you that, if we decide we do need it, permit us to go ahead. If this bothers you, I suggest that you disapprove it, and we'll come back later if we decide we need it."

The Board took him up on the suggestion and disapproved it. The estimated first year award was $150,000.

Board members agreed the Kentucky ALL study should be considered research and the investigator should be encouraged to submit an R01 grant application. DeVita said he would continue to be supported in a phaseout period to give him time to get into the grant cycle.

Four other contracts which will expire this fiscal year were approved as sole source renewals:

Preclinical and clinical evaluation of anticancer agents, Institute of Cancer Research, $105,000 first year.

Operation of chemical information system, Chemical Abstracts Service, $450,000.

Screening and pharmacological studies of anticancer agents in Europe, Mario Negri Institute, $333,500.

Development and production of clinical investigational dosage forms, Ben Venue Labs Inc., $950,000.

Cancer Therapy Evaluation Program Recompetitions

Phase II studies of gastrointestinal cancer.

Georgetown Univ., estimated first year award $200,000. The contractor will have a multidisciplinary team dedicated to the search for new effective therapies in cancer of gastrointestinal origin. A minimum of 40 patients per year will be entered in studies including either pancreatic or gastric cancer and an additional 40 patients in studies of other origin including colorectal cancer. The team should include, either available immediately or on a consultative basis, experts in diagnostic gastroenterology, chemotherapy, pharmacology, radiotherapy, surgery, and immunotherapy. The main task will be to test new therapies emanating from the Drug Development Program, for subsequent testing by other grant and contract supported investigators.

Explaining the program further, a CTEP description said, "With the advent of refined diagnostic procedures such as endoscopy, CT tomography, ultrasound, and laparoscopy with guided biopsies, the evaluation of new therapies has become much more refined and will allow development of new chemotherapeutic regimens. This will include the use of specialized techniques which might be helpful when the tumor spread is confined to the peritoneum or to the liver.

"In addition, the added diagnostic capabilities offer new dimensions in combined modality therapy because radiation therapy can be delivered with greater precision. Forms of radiation and combination programs with chemotherapy also need to be pursued.

"Finally, development of these therapies might require centers with adequate knowledge of nutritional derangements related to the disease and its treatment. Supportive care measures should include provisions to control malabsorption, symptoms related to the disease or treatment, and techniques of hyperalimentation.

"Many items related to development of these therapies were initiated in a contract on gastrointestinal cancer research by Georgetown Univ. This contract in part included aspects that will be covered by new grants programs and was less targeted to development of these therapies."

DeVita said the contract originally was restricted to institutions within 30 miles of the NIH campus because close collaboration with NCI staff was felt necessary. That will not be a requirement in the new RFP.

Lung Cancer Study Group.

Present contractors are a consortium of six institutions—UCLA, Fred Hutchinson Cancer Center, Mayo Clinic, Ontario Cancer Institute, M.D. Anderson Hospital, and Vanderbilt Univ. Estimated first year award, $1.4 million. The contractors have engaged in several collaborative trials in resectable non-small cell lung cancer. CTEP explained:

"Currently the group has nearly completed accrual in the first study of intrapleural BCG vs. control in stage I disease. Future studies are in the early planning stages and must be developed without knowledge of the results of the initial study since the accrual has been very rapid and followup is quite short. Ideas include use of transbronchial intralesional BCG, intrapleural BCG with levamisole, intrapleural and intradermal BCG, and chemoimmunotherapy. These ideas are based on unfunded pilot studies being carried out by member institutions. Additional studies under consideration would randomize long term (4+ years) survivors from the initial stage I study to chemoprevention with cis-retenoic acid or placebo.

"In the less common resectable stage II/III patients there are two ongoing studies with 25 patients on each. Accrual is only slightly behind that anticipated; however, an additional 2-3 years of patient entry is needed.

"Finally, this group is involved in several immune monitoring studies since each protocol makes use of immune modulators in one or more arms and member institutions have immunologic expertise. The group is using a standardized battery of intradermal antigens, standardized lymphocytes for blastogenesis and standard red cells for rosette studies. There is an attempt not only to monitor the effects of immune modulation and make clinical correlates but also to determine if immune monitoring tests can be standardized sufficiently to make such testing cost effective in other multi-institutional trials.

"This is a highly productive group which has worked together well in the past year. Current studies and important successor studies seem to dictate a need for recompetition of the effort in 1980. Collaborative clinical trials in this disease have not been

particularly successful via other funding mechanisms in DCT. If accrual and science are maintained at the current high level, recompetition in 1980 is strongly recommended, with consideration to the deletion of the immune monitoring, which should be complete by then. This group can also accrue 350-400 patients each year with locally unresectable M_0 in which one might consider therapeutic protocols which address questions including surgical debulking among others."

The Board approved sole source renewals of six CTEP contracts:

Coordinating center for clinical study of melanoma, Instituto Nazion, $109,108 first year award.

Controlled clinical trials for breast, gastrointestinal and brain tumors, Instituto Nazion, $150,000.

Clinical studies by the National Naval Medical Center, Veterans Administration and Walter Reed Army Medical Center (*The Cancer Letter,* Nov. 3).

Support services for investigational new drugs, Information Planning Associates, $165,000.

Clinical Oncology Program Recompetitions

Monitoring of immunologic competence in cancer patients. Litton Bionetics, estimated $200,000 first year award.

Hematology support care. Microbiological Associates, estimated $172,000 first year awards.

HL-A typing and matching for platelet and leukocyte transfusions. UCLA, estimated first year award $398,000.

Clinical data management services. Mason Research Institute, estimated first year award, $220,000.

The Board approved sole source renewal of the Clinical Oncology Program's contract with Makere Univ. in Uganda for development of a lymphoma treatment center, at $10,000 a year. The contract has been reduced from $67,000 in FY 1977, but DeVita said he is still "uncomfortable about it. I'm not sure it is money well spent, although we are still getting data." The discomfort is related to the Uganda political situation.

The Board approved sole source renewal of NCI's contract with Institute Jules Bordet for operation of a cancer therapy research collaborative office in Europe.

OBEY ACCUSES INDUSTRY OF BLOCKING CONTROL OF OCCUPATIONAL CARCINOGENS

Government efforts to protect workers from cancer-causing chemicals, "have been blocked at nearly every turn by powerful and insensitive government economists and budget analysts, by reactionary forces in the Congress and by the very powerful hand of American industry. But the biggest political battle yet on cancer may be fought in the coming year," Congressman David Obey (D.-Wisc.) said recently at a seminar on "The Politics of Cancer" sponsored by the Marshfield Medical Foundation, the Univ. of Wisconsin and American Cancer Society.

Obey is a member of the House HEW Appropriations Subcommittee.

"The stakes in that battle grow higher with every new revelation about the role of workplace chemicals in our mounting cancer death toll," Obey said.

"According to a new federal study, at least 20% and perhaps as much as 40% of all cancer cases in the United States are caused by exposure to carcinogens in the workplace—a finding that is without a doubt the most chilling news for workers in our lifetime. And that cancer caseload is even more horrifying when you break it down.

"For instance, it has been estimated that over the next 30 to 35 years more than two million Americans will die of cancer resulting from work-related asbestos exposure that has already taken place. That's over 60,000 deaths every year—considerably higher than the annual death toll for car accidents—and that figure assumes no future exposures to asbestos," he said.

"During the same period, it has been projected that a half a million Americans will die of cancer due to arsenic exposure. That's about 18,000 deaths a year or roughly the same number accounted for by all forms of murder.

"It has been estimated that over the next three decades, 100,000 Americans will die of leukemia caused by exposure to benzene. That's about 3,000 deaths a year, far more than will die in all airline, ship and railroad accidents," Obey said.

"This carnage will continue to grow unless we make a far more aggressive effort to control workplace exposure to cancer-causing chemicals, and that's where the battlelines are drawn. In order to overcome the delays in setting standards to restrict worker exposure to each chemical proven to cause cancer, the government has proposed a new standard that would treat all carcinogens alike. Once the scientific data on a particular chemical came in, the standard for it would be imposed automatically.

"This proposal has prompted the formation of an extremely well financed, high-level organization called the Industrial Health Council—a fancy name for protecting industry profits even it it means workers' lives," Obey said.

"Major contributions of staff and money have come from nearly 40 top chemical companies and contributions have been solicited from about 200 other corporations. And the first effort of the Industrial Health Council was to force a two-month delay in the public hearing on the proposed standard against cancer causing chemicals in the workplace," he added.

"In the end, the fate of the standard and the resolution of the larger question of human exposure to cancer causing chemicals will come down to a trade-off between the cost of disease and the cost of preventing disease.

"It is clear that industry will participate to a tre-

mendous degree in making that decision. Industry spokesmen sit on powerful government advisory committees that direct federal research efforts. Industry itself is involved in doing much of that research, often at government expense.

"Industry lawyers and scientists dominate public hearings on proposed standards to protect workers from cancer causing agents. Industry legal teams use all available avenues to slow standard-setting procedures and when the standards are set, they attempt to knock them down," he said.

"They are aided by economists at the Council on Wage and Price Stability who are preoccupied with the cost of equipment that would limit worker exposure to cancer causing chemicals. The bureaucrats minimize the cost of the medical bills, lost wages and human suffering that failure to install such equipment will insure.

"That litany leaves little doubt that industry will play a powerful role in the life-and-death decisions that lie ahead. It remains to be seen, however, to what extent workers and the general public will be able to counterbalance the industry effort and assert their right to a healthful workplace and environment," Obey concluded.

REQUEST FOR APPLICATION

Patterns of Care in Oncology

The Div. of Cancer Control & Rehabilitation of NCI is inviting grant applications for the purpose of determining existing patterns and standards for the management of the more common tumor types.

DCCR is currently funding a study entitled "Clinical & Research Radiation Therapy in Cancer Care" which is popularly referred to as the "Patterns of Care" study, which includes an analysis of current patterns of radiation therapy.

Intent of this RFA is to generate grant proposals from organizations having the capability of determining existing patterns and standards of cancer management for one or more of the common cancers. Proposals should be limited to what could reasonably be accomplished on a regional basis (area that provides statistically valid results) and regarded as a pilot study for potential expansion to a national program. The applicant shall select one or a group of cancers diagnosed and treated within a medical specialty or managed primarily by one specialty. The application shall define the scope of the assessment in terms of specialties and interventions involved and the rationale for the selection.

Applicants should address all of the following points, although support is not limited to items noted: Description of the research plan including facilities, personnel and patient population; methodology for accomplishing tasks; costs; description of evaluation plan; and timetable for accomplishing objectives and producing final results of program.

Each prospective applicant should submit a letter of intent containing a brief description of the proposed project. Due dates are: Letters of intent, Dec. 1, Feb. 1 and June 1. Applications: Jan. 15, March 1 and July 1.

The letter of intent should be addressed to: Harry Handelsman, program director for clinical cooperative groups, DCCR, Room 616, Blair Bldg., Bethesda, Md. 20014.

Applications should be submitted on form PHS 398. The conventional presentation for grant applications should be utilized and the points identified under the review criteria must be fulfilled. The words "Proposal in Response to RFA: Patterns of Care in Oncology" must be typed in bold letters across the top of the face page of the application. The oroginal and six copies of the application should be sent or delivered to: Application Receipt, Div. of Research Grants, NIH, Room 240, Westwood Bldg., Bethesda, Md. 20014.

A brief covering letter should accompany the application indicating that it is in response to this RFA. A copy of the covering letter should be sent to: Lawrence Burke, Room 617, Blair Bldg., NCI, Bethesda, Md. 20014, to indicate the application has been submitted.

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. Some listings will show the phone number of the Contract Specialist, who will respond to questions. Listings identify the respective sections of the Research Contracts Branch which are issuing the RFPs. Their addresses, all followed by NIH, Bethesda, Md. 20014, are:
Biology & Diagnosis Section — Landow Building
Viral Oncology & Field Studies Section — Landow Building
Control & Rehabilitation Section — Blair Building
Carcinogenesis Section — Blair Building
Treatment Section — Blair Building
Office of the Director Section — Blair Building
Deadline date shown for each listing is the final day for receipt of the completed proposal unless otherwise indicated.

RFP NO1-CO-85427-09

Title: *Science content analysis system (SCANS) development*
Deadline: *Jan. 2*

NCI intends to issue an RFP to obtain the services of an organization with demonstrated capability of maintaining and further developing the Science Content Analysis System (SCANS). Work to be accomplished will be in three areas: Data base expansion, report production, and software enhancement.

Data base expansion is the process whereby data from projects supported by the NCI during each fiscal year are added to the existing project data base.

Report production will be required based on the data files in the SCANS such as: Program Analysis &

Formulation Branch (PAFB) of the Office of Program Planning & Analysis, Office of the Director (OD); NCI annual report; reports concerned with ad hoc queries relating to current and/or prior year files by vertical or horizontal analysis; special reports such as those prepared for the director, NCI; National Cancer Program; NCI advisory groups; and NCI division directors.

Software enhancements are under consideration such as: extending the ad hoc query capability for information requests from the scientific research community; increasing options and capabilities for information retrieval and printing.

Offerors shall be limited to those firms having operating facilities within a 35 mile radius of Bethesda, Md., as daily person-to-person contact is often necessary.

An RFP will be mailed to requestors with a prebidders conference planned for Dec. 4, 1978.

Contracting Officer: Shelby Buford Sr.
Research Contracts Branch
301-427-7984

RFP NCI-CB-94327-39

Title: *Study of the interaction of exercise, dietary carbohydrate source and development of cancer cachexia hypophagia in tumor-bearing rats*

Deadline: *Jan. 3*

NCI is interested in establishing a contract with organizations capable of investigating the separate and interactive effects of quantitatively imposed exercise and variation in dietary carbohydrate source on the systemic response of rats to growth of tumors, with particular reference to food intake, carcass depletion (cathexia) and blood lactate.

This research effort is to be performed in close collaboration with NCI staff. The contractor's facility must be within a 50-mile radius of the NIH campus in Bethesda, Md.

Contracting Officer: Thompkins Weaver Jr.
Biology & Diagnosis
301-496-5565

NCI CONTRACT AWARDS

Title: Study of oncogenesis and other late effects of cancer therapy
Contractor: Children's Hospital of Philadelphia, $138,000.

Title: Studies of natural inhibitors of chemical carcinogens
Contractor: Oregon State Univ., $129,563.

Title: Characterization of antigen binding T-cell receptors
Contractor: Univ. of California (San Francisco), $89,825.

Title: Immunoprevention of tumors in rabbits
Contractor: Pennsylvania State Univ., $78,448.

Title: Intratumoral BCG immunotherapy prior to surgery for carcinoma of the lung
Contractor: Yale Univ., $61,894.

Title: Clinical application of assays for tumor associated antigens
Contractor: Northwestern Univ., $65,514.

Title: Measurement of immunological reactivity to human cancer
Contractor: Litton Bionetics, $621,039.

Title: Immunological relationship between tumor and microbial antigens
Contractor: Univ. of Texas Cancer Center, $78,160.

Title: Detection of tumor specific antigens in circulation
Contractor: Scripps Clinic, $75,247.

Title: Clinical evaluation of immunodiagnostic tests for cancer, continuation
Contractor: Kaiser Foundation, Oakland, $77,613.

Title: Diagnostic use of cross-reacting microbial antigens
Contractor: Univ. of Texas System Cancer Center, $78,160.

Title: Cell mediated reactivity of normal individuals to human tumor associated antigens
Contractor: UCLA, $72,464.

Title: Diagnostic application of monocyte function in cancer patients
Contractor: Duke Univ. Medical Center, $63,271.

Title: Study on immunotherapy of mouse ovarian cancer using specific serotherapy in combination with intraperitoneal C. parvum
Contractor: Sidney Farber Cancer Institute, $110,015.

Title: Serologic assays with purified melanoma associated antigens
Contractor: Sloan-Kettering Institute, $56,562.

Title: In vitro augmentation of cell mediated cytotoxicity
Contractor: Sloan-Kettering, $91,908.

Title: Animal models for bone marrow transplantation
Contractor: New York Univ., $70,199.

The Cancer Letter —*Editor* JERRY D. BOYD

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