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DCCP BOARD APPROVES CONCEPTS OF $2.6 MILLION IN NEW COMPETING PROJECTS, $1.2 MILLION IN RECOMPETITIONS

The Board of Scientific Counselors of NCI's Div. of Cancer Cause & Prevention approved the concept of competing new projects with estimated first year funding totaling more than $2.6 million and to recom-

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In Brief

SENATE BILL WOULD GIVE NCI $1.034 BILLION IN 1982, $45 MILLION (3.5 PERCENT) MORE THAN FY 1981 BUDGET

SENATE APPROPRIATIONS Committee added $8.3 million to the President's budget request for NCI in the 1982 fiscal year in its markup session last week, bringing the total to $1.034 billion (specifically, one billion, 34 million, 180 thousand). The House figure, arrived at in closed session, turned out to be $1.030 billion. The final total which will come out of the House-Senate conference probably will be between the two figures, although a compromise involving other spending could give NCI the amount offered by the Senate. In any case, the difference is miniscule; at best, NCI's budget in the fiscal year which starts Oct. 1 will be only $45 million more than it was in 1981. That's an increase of 3.5 percent, in the face of inflation still running 12 percent or more. The extra $8 million added by the Senate subcommittee was earmarked for research grants and for restoration of half of the institutional allowances supporting training grants. . . . BARTH HOOGSTRATEN, former chairman of the Southwest Oncology Group and former co-director of the Mid-America Cancer Center at the Univ. of Kansas, is medical director of the Cancer Treatment Center at Bethesda Hospital in Cincinnati. . . . NIH AGREED TO a peer review of the findings in its investigation of Marc Straus, as requested by the group, "Scientists Supporting the Rights of Marc Straus." However, William Raub, associate director for extramural research and training, told the group that NIH did not believe an evidentiary, trial type proceeding was necessary or appropriate. Nor will the NIH probe be combined with FDA's; "We concluded this would not be practical," Raub wrote to the group. Committee Chairmen Ruth Moran and Mendel Krim objected, contending that "basic fairness" requires offering Straus the chance to confront those who made charges against him. They also objected to efforts to strip Straus of his $300,000 a year grant, as demanded by Sen. Orrin Hatch and certain of his colleagues. "Due process dictates that negative action not be taken against Dr. Straus or any other scientist until there is final proof of wrongdoing properly established. Any official action by NIH or FDA which limits his research, grant or clinical activities prior to a conclusion of this case is not only an abrogation of Dr. Straus' rights but creates in itself a negative atmosphere which could preclude an unbiased review," Moran and Krim wrote.

DCCP BOARD OKAYS RECOMPETITIONS, NEW PROJECTS, DELAYS ON OTHERS

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petition of existing projects with first year funding of $1.2 million, all supported through contracts. RFPs for the new and recompeted procurements will be made available over the next few months, with initial funding to come from the 1982 fiscal year budget.

The Board also gave concept approval to noncompetitive (sole source) procurements totaling $1.3 million in first year awards, and to $335,600 in work performed by the National Institute of Occupational Safety & Health with DCCP money.

The Board deferred action on six proposals costing an estimated $773,000 in first year awards, and disapproved another with a $170,000 price tag.

Descriptions of new projects which were approved and will be competed follow:

Hamster respiratory carcinogenesis resource for in vivo/in vitro correlation studies. Proposed first year award $200,000; total project amount, $500,000 for three years. Staff narrative:

Development of the Laboratory of Experimental Pathology's new program at FCRC is directed to the concurrent study of in vivo animal models for epithelial carcinogenesis and their in vitro counterparts, using epithelial organ and cell culture methods. Mechanism studies will focus on the interaction of different carcinogens, especially when synergistic. The hamster bronchogenic carcinoma induction system, Saffiotti et al, 1968, is the model of choice. Its study in the past decade showed that its histopathogenesis is closely similar to the human counterpart at the cellular, histochemical and ultrastructural level. Recently developed methods for respiratory epithelial organ and cell culture will be adapted to these studies and correlated with work done in other laboratories on the corresponding human target tissues.

It is estimated that it will take at least one year before the hamster breeding colony now planned for FCRC will be adequately productive and it may take another year to reach optimal conditions. Renovation of animal production facilities is still in a planning stage. Recruitment of professional and technical personnel and training in these special techniques is also projected to require considerable time. Tissue culture facilities, however, are nearly ready and could be used effectively if the animal material were available.

A resource is therefore sought to provide both good facilities and competent personnel to perform the following work: a) maintenance and treatment of hamsters with various carcinogens and cofactors, alone or in combination; b) preparation of selected tissues by specialized techniques, e.g. histochemistry and E.M.; c) necropsy of experimental animals and tissue pathology examination; and d) tissue explants for preparation of organ and cell cultures. It is estimated that no more than 2,000 hamsters/year will be needed, while animal maintenance costs will average 700 animal-years.

Studies on toxicology and pharmacology of biological and chemopreventive agents. Proposed first year award, $600,000; total project plan, $2.4 million (reduced by the Board from the staff request for $3 million) for four years. Narrative:

Strategies for cancer prevention involving reduction or elimination of human exposure to carcinogens, cocarcinogens, initiators and promoters may not always be possible. An alternate approach to cancer prevention involves modification of the host response to these agents so as to inhibit, arrest, reverse or delay the process of cancer development. A program of biological and chemical prevention of carcinogenesis exists in the Chemical and Physical Carcinogenesis Branch, which supports both basic preclinical research on anticarcinogenesis as well as preclinical drug development efforts.

The proposed studies would evaluate the toxicological and pharmacological properties of synthetic retinoids and, in addition, other substances for which there is the potential for eventual practical application for prevention of cancer in man. Such studies are essential as part of the overall efforts to develop safe and effective pharmacological/physiological agents for prevention of human cancer, agents which in some cases may need to be employed chronically if they are to be efficacious. The basic objectives of the studies are to evaluate the acute and subacute/subchronic toxicity of retinoids and other agents and their pharmacologic properties that will be provided by NCI. Tests will be performed in rats and mice and should run no longer than 13 weeks, in most cases. The anticarcinogenic agents will be given by both oral and intraperitoneal routes. Should agents which have been used successfully in combined chemoprevention protocols, or combined biological and chemoprevention protocols, be tested, such toxicity tests shall be performed under similar protocols of combined usage so as to assess possible interactions of the agents leading to toxicity.

Support services for case control studies of emergent cancer problems. Proposed first year award, $950,000; total project plan, $2.85 million over three years. (The Board stipulated that any single project costing over $500,000 must first be approved by an ad hoc subcommittee of the Board.) The mechanism will be master agreements, awarded competitively, under which task orders will be issued. Narrative:

Leads to cancer etiology are occasionally of such public health or public policy importance as to warrant rapid evaluation. The suggestion from experimental and epidemiologic investigation that the risk of bladder cancer was increased from saccharin, the observation in Sweden of sharply elevated risks of soft tissue sarcomas and lymphoproliferative disorders from certain widely used herbicides, and the concern over the reported cancer hazard from fluoridation and chlorination of drinking water are examples of issues that have arisen within the past few years requiring quick resolution. They represent situations of national visibility and importance, with exposures generally affecting very large numbers of individuals. The Environmental Epidemiology Branch is frequently called upon to respond, often by congressional or executive mandate. This project would provide managerial, data collection, processing, and nontechnical support to address such issues. The services would not be primarily for intramural projects, but rather would be used for support of collaborative research, including investigators with SEER registries or other large sources of cancer patient data. The contract will be of the master agreement/task order form to facilitate rapid deployment of resources.

It is not possible to specify in advance the projects to be undertaken or their costs. However, examples of situations which might require utilization of this contract include a national case control study of lung cancer as recommended by the congressional Office of Technology Assessment, and a major assessment of dietary and other factors in the etiology of cancer of the pancreas (should some of the ongoing studies show a link to coffee drinking).

Biochemical, pharmacological and tumorigenic studies on a composite of drinking water carcinogens and mutagens utilizing aquatic animals as a bioassay animal. Proposed first year award, $175,000; total project plan, $700,000 over four years. Narrative:

In recent years, epidemiological studies have been reported relevant to organic contaminants in drinking water. The drinking water was derived from various sources such as ground water and surface water and some was chlorinated and some was not. THM's (trichloromethanes) are a measure of contamination and processing. While some of the epidemiological studies suggest some statistical association between the descriptive factors named above and possible increased cancer frequency (primarily bladder), they fall short of any causal relationship. It remains therefore to design and conduct experimental studies. The writers have proposed five experimental approaches, but, from a technical and cost standpoint, they seem less feasible in the rodent. Accordingly, we considered finfish whose natural habitat is the aquatic environment.

Beyond the carcinogenicity bioassay, this project could ascertain the effect of a multicomponent mixture (not frequently done in bioassay) and because of the inherent sensitivity of fish to toxic agents, the dose response studies could be in realistic exposure ranges. Fish are now demonstrated models for carcinogenicity (aflotoxin, PAH, and others) and more attention is being given to this test model. Small fish can be tested in tanks in large numbers, the time frame of the test is shortened, the bioassays are less expensive and the pathology and histopathology is less rigorous. BaP is handled metabolically in fish similarly as in the rodent.

Several strains could be used such as the Sheepshead Minnow (cyprinodone variegatus), Zebra fish (Danio reria), Medaka (oryzias latipes) and guppies. The Medaka was used to bioassay DENA (diethylnitrosamine) for liver carcinogenesis (Europ. J. Cancer, 14: 1088-97, 1978). In the proposal herein presented, the bioassay is predicated on the use of a "synthetic water" mixture; that is, highly purified water to which a mixture of organic chemicals (nine major contaminants) have been added. The control group would, of course, be on the highly purified water. Fish in a baseline test group could be exposed to one of the most highly contaminated municipal drinking water supplies.

For the groups, sea salts may have to added for proper osmolality, especially for salt water fish. The contaminant chemicals added to the "pure water" would be added at multiple concentrations consistent with the concentration ranges appearing in drinking water. To provide for a sufficient stress to the test animal of this total mixture of nine chemicals, arbitrary doses of 3X, 5X, and 10X times the standard average concentrations in drinking water would be administered to elicit tumorigenesis without intoxication. The dose setting would be dependent on range finding studies to especially ascertain the MTD (maximum tolerated dose) which may not be very high for the sensitive fish strain selected. The select list of biorefractories (referenced above) would be provided to the investigator. Statistical analysis of the tumor data derived from the studies would be made to arrive at some assessment of significance of tumorigenicity between control versus test animals.

Ancillary to these toxicological studies, biochemical measurements would be made on tissues and organs of animals in control and test groups. These tests would involve enzymatic analysis for MFO induction, liver dysfunction tests, tests on conjugation systems and epoxide hydrase and perhaps cytochrome P-450 and NADPH cytochrome-c-reductase.

Laboratory support for processing and storage of biological specimens from persons at high risk of cancer. Proposed first year award, $180,000; total over five years, $994,613. Narrative:

The Environmental and Clinical Epidemiology branches of NCI have as their mission the identification and evaluation of new hypotheses regarding determinants of cancer risk in man. Interdisciplinary laboratory studies of persons at high risk of cancer provide opportunities to evaluate the role of host susceptibility and host environmental interactions in cancer etiology. Study groups include: (1) patients with genetic disorders that enhance cancer risk; (2) familial clusters of the same or related malignancies; (3) patients with nonneoplastic conditions that predispose to cancer; and (4) patients with prior or current environmental exposures that may increase cancer risk. A repository of 42,000 specimen vials has been collected by EEB and CEB staff since 1970, and represents an invaluable resource for collaborative studies with etiologically oriented investigators. The types of specimens include serum, plasma, peripheral blood mononuclear cells (PBMC), red blood cells, bone marrow cells, urine, tumor cells, tumor extracts, lymphoblastoid cell lines, etc., from persons at high risk of cancer. Many of these specimens are irreplaceable, having been obtained from particularly informative study participants who are now deceased. In the past, laboratory studies utilizing these specimens have played a prominent role in many branch scientific publications. Under the proposed procurement, all specimen processing and storage in support of ongoing etiologic studies would be performed in preparation for specimen transfer to collaborating laboratory scientists. These studies include in vitro immune functions, HLA-typing, red cell and serum polymorphic genetic markers, immunogenetic and genetic linkage, cytogenetics, virology, recombinant DNA, tumor markers, routine and special biochemistries, etc.

The cryopreserved white cells in the repository are critical to a series of immunogenetic studies being conducted under an interagency agreement with the Naval Medical Research Institute. In addition, stored specimens will provide a resource for rapidly assessing the usefulness of newly developed assays of potential etiologic importance. We will seek an experienced, reliable contractor to continue this work.

Breast Cancer Detection Demonstration Project case control study. Total project estimated, $500,000 over 18 months. Narrative:

This project involves home interviews with a sample of women who participated in the 29 center Breast Cancer Detection Demonstration Project (BCDDP). The study group includes all women in the screened population who developed breast cancer during the five year project, a sample of normal participants, and a sample of those who had a negative biopsy (benign disease). The sample of normals and of benign disease patients are matched to the cancer cases on the bases of center, age, race and duration of participation in the project. The interview focuses on obtaining various known and suspected breast cancer risk factors.

The current concept relates to a recompetition for the interviewing services for this project, in order to complete the interviews of cases and their matched controls who were diagnosed over the last half of the BCDDP (approximately 2,000 cases and their matched benign disease patients and normal controls). The first half of the project was conducted by the Div. of Cancer Control & Rehabilitation with scientific control exercised by DCCP. The concept for the study was reviewed and approved by a number of committees while in the other division. The current review results from an agreement between both divisions to transfer the administrative and fiscal responsibilities for the study of those who are responsible for its scientific aspects.

The BCDDP population offers a unique opportunity to assess the risk of breast cancer and benign breast disease among a large, diverse population of initially asymptomatic women attending a breast cancer screening program. The value of the study is enhanced by the ability to link this risk factor information with the rest of the BCDDP data base, including standardized recording of mammographic and physical exams and standardized pathology review of breast surgery specimens. Included among the issues that can be addressed are the epidemiology of "minimal" breast cancer, the comparative

epidemiology of breast cancer that has progressed to various stages within a year of a normal screen (or several successive years of normal screens), the epidemiology of various types of benign lesions with the ability to use women with no physical or mammographic evidence of benign disease as the referent group, the epidemiology of various mammographic patterns, and the interrelationship of these patterns with standard breast cancer risk factors in predicting breast cancer risk. Of particular relevance to the program of the EEB is the opportunity to investigate the role of various drugs (e.g. estrogens, oral contraceptives, tranquillizers), and particularly the opportunity to investigate drug effects in special subgroups offered by this large study (e.g. estrogen use in oophorectomized women, oral contraceptive use at a relatively old age). The study size also affords the opportunity to address directly various interactions between recognized breast cancer risk factors, and thus allow some inferences as to the possible biologic mechanisms of action of these risk factors.

The information obtained is also of substantial relevance to other investigators as well. The risk factor information will provide a part of the base line information required by the BCDDP itself for its own program evaluation (e.g. the amount of the differences in disease or biopsy rates between centers attributable to differences in risk factors, and drop out rates in relation to risk factors). In addition, a sample of the 250,000 participants has been selected for followup by the Div. of Resources, Centers & Community Activities after the program's completion. To be addressed are a number of program evaluation issues (e.g. the screening experience of subjects after discontinuation of this program) as well as a number of issues concerning the natural history of breast disease (subsequent morbidity and mortality of various groups). The subjects chosen for inclusion in the case control study form the core of the group selected for followup, since these women will be those for whom relevant information will be most complete. Finally, the interview information is returned to the participating centers themselves. A number of centers have independent research projects involving this population, including classification of mammograms by Woolf and other criteria, analysis of breast fluid aspirates, and comparison of independent screening modality detection rates. All of these projects require base line risk factor information, and our provision of these data prevents needless duplication and harassment of study subjects.

The BCDDP is a 29 center breast cancer screening project jointly sponsored by NCI and the American Cancer Society. The goal of the project was to enroll approximately 250,000 women in a program of annual breast cancer screening examinations involving mammography, physical exam, and (in some centers) thermography. The rationale for the project was to demonstrate how a screening test proven to be efficacious in reducing mortality in a clinical trial could be delivered on a mass scale to the general public. A major data requirement needed to test a number of biologic hypotheses, as well as for program evaluation of the BCDDP, was information from the screened population on the major breast cancer risk factors. Upon review, the advisory committee for the program reasoned that obtaining standardized, high quality risk factor information from the entire population would be prohibitively expensive and that the goals of the project could and should be met by obtaining the information on a case control basis. In response to this recommendation a home interview case control study was designed. For a variety of reasons the study was delayed until scientific responsibility was assumed by the Environmental Epidemiology Branch of DCCP in 1978. The first interview contract covered the first half of the cases identified in the program. The proposed procurement is for a recompetition of this interviewing services contract in order to cover the remaining cases identified in the program.

Because of the various controversies surrounding the BCDDP, every aspect has been reviewed by a number of different committees. As noted, the concept of the case control study was initiated by the Advisory Committee for the BCDDP. It has subsequently been reviewed and approved by the Epidemiology and Biostatistical Review Group of the Beahrs Committee, the Ad Hoc Subcommittee on the Followup of the BCDDP, and the advisory committee of the Div. of Cancer Control & Rehabilitation. (The followup committee was formed to make recommendations about which participants of the BCDDP should be followed up after the completion of the five screening exams. The case control study participants represent the core of the population recommended for followup, since this was the subgroup for whom relevant information will be most complete.)

The reason for this current concept review is that the case control project is being formally transferred from DRCCA to DCCP. Since DCCP has scientific responsibility for the study, it was felt that the opportunity for quality control would be considerably enhanced by moving the administrative and fiscal control to DCCP.

Carcinogenesis studies using cultured human tissues and cells. Total project amount, $50,000 for one year. This contract will provide administrative support for a conference scheduled for Sept. 20-24, 1982. Narrative:

In 1979 NCI and the National Heart, Lung & Blood Institute cosponsored an international conference entitled "Culture of Normal Human Tissues and Cells." We believe that sufficient progress using human tissues and cells to study the various aspects to carcinogenesis has been made to warrant a second international conference. The program of the conference will include nine sessions: (1) Control of growth and differentiation in normal and neoplastic human cells, (2) Metabolism of chemical carcinogens and DNA damage; (3) DNA repair, mutagenesis, and chromosomal lesions, (4) Xenotransplantation, (5) Tumor promoters, transforming growth factors, DNA transfection, and gene amplification, (6) Malignant transformation by physical carcinogens, (7) Malignant transformation by chemical carcinogens, (8) Malignant transformation by microbial agents, and (9) Laboratory-epidemiology studies of host factors.

The number of invited participants will be kept below 100 to encourage active discussion and exchange of ideas. The proceedings will be published to communicate the information to the scientific community.

Following are the existing projects approved for recompetition:

Resources for human esophageal tissue and cells from donors with epidemiological profiles. Present contractor is the Univ. of Maryland. Proposed first year award, $78,000; total project over four years, $336,000. This contract has been averaging about $45,000 a year, and is being increased to make the material available for extramural investigators. Narrative:

Model systems for the study of carcinogenesis using cultured human cells are providing new opportunities to assess: (a) mechanisms of carcinogenesis in human cells; (b) host factors that influence an individual's susceptibility to carcinogenic agents, e.g., the metabolic balance between activation and deactivation of chemical procarcinogens; (c) logical approaches for the qualitative extrapolation of carcinogenesis data from experimental animals to the human situation; and (d) methods to inhibit the multistage processes of neoplastic transformation and progression. An important aspect of this approach is to conduct parallel studies in epithelial tissues and cells from experimental animals so that interspecies comparisons can be made.

A resource for (1) the collection of normal appearing and neoplastic human esophageal tissue and cells at the time of surgery (cancer and noncancer donors) and of immediate autopsy (noncancer donors); and (2) the culture and storage of esophageal epithelial and fibroblastic cell stocks is proposed to continue the carcinogenesis investigation of the Laboratory of Human Carcinogenesis. Essential components of the resource will include (a) approval of the institutional committee for protection of human subjects, (b) an epidemiological profile of the donors obtained by trained interviewers, (c) proven methods for collecting, culturing, and transporting the specimens in a viable condition to NIH, and (d) an evaluation (characterization) of the functional and pathological status of the tissue by histochemical and immunological methods and by light and electron microscopy. The contractor will provide the laboratory with matched esophageal tissue and cell cultures from each human donor. These tissues and cells will be used to study malignant transformation caused by chemical, microbial and physical carcinogens and cocarcinogens. The tumorigenic potential of these cells will be further tested in athymic nude mice.

Refrigerated repository for biological materials. Present contractor is Microbiological Associates Inc. Proposed first year award, $100,000; total project over five years, $500,000 (reduced by the Board from $150,000 the first year and total $825,000 proposed by staff). Narrative:

The low temperature repository at Microbiological Associates consists of 4 degrees C, -20 degrees C, -70 degrees C and liquid nitrogen storage for biological materials. This allows for centralization of these facilities so that there is no need for duplication of equipment for small volume users. Furthermore a contractor operated facility enables us to utilize our valuable space on campus for laboratory space. There are several important safeguards provided by the contract which included an elaborate alarm system, back up equipment for equipment failures and a gas generator in case of power failures. These safeguards and back up systems are not available to our labs on campus. Two types of inventories are available: a computer inventory and a manual card inventory. Samples can be sent to the contractor and the contractor will aliquot, store the sample at the appropriate temperature and maintain the inventory. The contractor will send on request samples back to the investigator within 24 hours.

Board member James Watson said he would cast "a symbolic vote against this on the theory that most of us have to throw away things we keep in the deep freeze. It sounds good, but I doubt if it is used that much. If the government is going to cut money going to poor people, we can cut this. Every time we put something in storage, we find it should have been thrown away."

Richard Adamson, acting DCCP director, suggested that reducing funding of the project by one third and requiring periodic assessment of stored items with those not being used to be discarded would be an acceptable compromise. The Board agreed.

The seroepidemiology of Epstein-Barr virus. Present contractor is Children's Hospital of Philadelphia. Proposed first year award, $235,000; total project, $705,000 over three years. Narrative:

The Epstein-Barr virus (EBV) is closely associated with two human malignancies, Burkitt's lymphoma (BL) and naso pharyngeal carcinoma (NPC), and is the etiological agent for infectious mononucleosis (IM). More recently attention has been focused on immunodeficient patients who are susceptible to EBV-associated lymphoproliferative diseases. The defective immune surveillance may result from inherited genetic abnormalities or from immunosuppressive regimens used in treatment of cancer or transplant patients or from a disease process. Studies are being conducted to determine the specific defects in immune surveillance in such patients. In immunocompetent hosts, developmental studies of serological methods for diagnosis, prognosis, and monitoring patient status in EBV-associated diseases are continuing.

It is the intent of this contract to support an international reference laboratory for EBV serology for investigators and clinicians. The laboratory will not only provide reliable serological data and certified sera but will advise investigators and clinicians of the significance of the serological patterns obtained. The contractor will also initiate and participate in long range clinical and seroepidemiological collaborative studies on EBV associated diseases with investigators in the U.S. and other parts of the world.

Support services for occupational studies. Present contractor is Westat Inc. Proposed first year award, $820,000; total project amount, about $2.5 million over three years (staff had proposed a five year contract totaling $5.5 million). This is a collaborative project with the National Institute of Occupational Safety & Health, which will pay half the cost. Narrative:

To conduct a program of occupational studies, NCI requires the assistance of an organization highly experienced in providing technical support for all phases of occupational health studies including the design of data collection documents, hiring and training of interviewers and abstractors, collecting, keying, editing, updating, and recoding data; tracing individuals, and creating and manipulating data files. The scientific aspects of all projects are determined by the professional staff of the branch. The contractor must provide a team of study managers, abstractors and interviewers, computer programmers, coders and keyers, and other support personnel to complete study tasks. A new contract to provide these services would be completed to replace the current contract with Westat Inc., which terminates in September 1982.

Study designs to be employed include cohort, case control, and proportionate mortality or morbidity approaches depending upon study objectives and the availabaility of resources. Occupational groups are selected for study because of: (1) exposure to suspected carcinogens, based on experimental or epidemiologic evidence, (2) case reports from alert clinicians, and (3) requests from other agencies and organizations inside and outside of government. All studies are thoroughly reviewed by senior staff of the branch as well as by interested parties such as other government agencies, labor unions, companies and industrial organizations, professional societies, and collaborating scientists, where appropriate.

The Board approved the following new projects, contracts for which will be awarded on a noncompetitive basis:

—An epidemiology study of breast cancer in Oriental Americans, $400,000 a year for three years, with a Board review after the first year (it is possible that one or more contracts for this project will be competed, depending on the availability of organizations capable of performing the work).

—Hybridoma resource, $87,000 first year, $375,000 total, four years on an interagency agreement with the National Naval Medical Center, in collaboration with NCI's Div. of Cancer Treatment.

—Feasibility studies for collaborative epidemiologic cancer research in China, $195,000 for one year to the Chinese Academy of Medical Sciences, Beijing.

—Additional followup of a roster of U.S. veterans with smoking histories, $250,000 for 16 months with the National Academy of Sciences.

Following are existing projects approved by the Board for noncompetitive renewal:

—Collection of clinical specimens for studies on Burkitt's lymphoma, Univ. of Ghana Medical School, first year award, $25,000, total project $80,000 over three years. This was approved with the condition that availability of the specimens be made more widely known to investigators.

—Resource for procurement of human tissues from donors with an epidemiological profile, VA Hospital, Washington, D.C., first year award, $54,000, total project $233,000 over four years.

—Epidemiologic studies of cancer among A-bomb survivors, National Academy of Sciences, $250,000 first year, $1.25 million over five years.

—Epidemiologic studies of cancer in Alaskan natives, $170,000 a year for two years, Center for Disease Control.

—Case comparison study of childhood cancer and parental occupation, NIOSH/FDA, $50,000, two years.

—Operation of a registry of tumors in lower animals, Smithsonian Institution, $230,000 first year, $724,000 over three years.

The Board disapproved a proposed study of the effect of aging on susceptibility to carcinogens, estimated to cost $600,000 over three years. Mechanism studies are needed first, Board members agreed.

The Board deferred action until its meeting next May on a project to conduct feeding studies in rodents to identify tumor promotors. The three year study would have cost an estimated $945,000. Board members said they wanted the concept redefined, and suggested that it would be more appropriate for the National Toxicology Program to support.

Also deferred was action on the etiology of newsprint workers' cancer, $435,000 for animal studies to identify the carcinogenic agents to which those workers are exposed, also suggested as more appropriate for NTP; a beryllium retrospective cohort investigation, a NIOSH inhouse study; a case control study for soft tissue sarcoma, another NIOSH project; and support services for the clinical studies section projects on cancer in Tunisia conducted by the Laboratory of Viral Carcinogenesis, deferred until the Board's review of the lab prior to its February meeting.

The NIOSH inhouse studies approved by the Board which will be funded with DCCP money included:

—Prospective epidemiological and environmental study of coal miners exposed to diesel emissions, $25,000, two years (reduced from the request of $100,000, and the Board will review it again at its next meeting).

—Industrywide study of reproductive effects of glycol ethers, $45,000 (reduced from $90,000 because it it not primarily a cancer study).

—Feasibility assessment-retrospective mortality study of synthetic fuel workers, $20,000.

—Asbestos morbidity and mortality of railroad shop workers, $110,000.

—Effects of fluoride on carcinogenicity of mineral fibers, $30,000.

—Investigation of brain tumors among Dow Chemical workers in Texas, $75,000.

—Feasibility assessment of a morbidity, mortality and industrial hygiene study of welding, thermal cutting and brazing, $41,600.

NCI CONTRACT AWARDS

Title: Comprehensive Cancer Centers Communications Network (CCCN), additional nine weeks
Contractor: Ohio State Univ., $15,810.

Title: Drug distribution and protocol monitoring system, continuation
Contractor: Value Engineering Co., $236,031.

Title: Carcinogen bioassay of acetonitrile
Contractor: Hazleton Laboratories, $172,266.

Title: Carcinogen bioassay of 1,2,3-trichloropropane
Contractor: Hazleton Laboratories, $183,337.

Title: Effect of early detection and treatment on survival from lung cancer, continuation
Contractor: Memorial Hospital for Cancer & Allied Diseases, $848,359.

Title: Mayo lung project for detection and localization of early lung cancer, continuation
Contractor: Mayo Foundation, $304,840.

Title: Lung cancer control—detection and therapy—Phase II, continuation
Contractor: Johns Hopkins Univ. School of Medicine, $817,309.

Title: Establishment and monitoring of microorganisms in isolator maintained foundation colonies
Contractor: Charles River Breeding Laboratories, $678,201.

Title: Biochemical and biological characterization of antitumor drugs
Contractor: Arthur D. Little Inc., $427,975.

NCI ADVISORY GROUP, OTHER CANCER MEETINGS FOR OCT., NOV., FUTURE

NCI Div. of Cancer Treatment Board of Scientific Counselors—

Oct. 1-2, NIH Bldg 31 Rm 6, open 8:30 a.m. both days, closed Oct. 1, 7:30 p.m.-adjournment.

Nutrition & Cancer—Oct. 1-2, sponsored by Roswell Park Memorial Institute and American Cancer Society. Contact Gayle Bersani, RN, Cancer Control Coordinator, RPMI, 666 Elm St., Buffalo, N.Y. 14263.

NMR Imaging & Cancer: State of the Art Conference—Oct. 1-3, Winston-Salem, N.C. Contact Dr. Francis Mohoney, Program Director, DCT, NCI, Landow Bldg. Rm. C809, Bethesda, Md. 20205, phone 301-496-9360.

National Cancer Advisory Board Subcommittee on Organ Site Programs—Oct. 4, NIH Bldg 31 Rm 8, 7:30 p.m., open.

National Cancer Advisory Board—Oct. 5-7, NIH Bldg 31 Rm 6, open Oct. 5, 8:30 a.m.—3:15 p.m. and Oct. 7, 9 a.m.—adjournment.

NCAB Subcommittee on Planning & Budget—Oct. 5, NIH Bldg 31 Rm 11A10, 7:30 p.m., open.

Medical Oncology Review—Oct. 12-16, Honolulu, Princess Kaiulani Hotel. Clinically relevant aspects of causation, growth, biology, diagnosis, treatment, and rehabilitation from the view of the internist will be reviewed. Sponsored by the Univ. of Hawaii Cancer Center and Royal Australasian College of Physicians. Contact Linda Salsinger, Div. of Continuing Education, American College of Physicians, 4200 Pine St., Philadelphia 19104.

International Symposium on Health Effects of Tumor Promotion—Oct. 12-15, Cincinnati. Contact Dr. Michael Pereira, USEPA, Health Effects Research Laboratory, 26 West St. Clair St., Cincinnati, Ohio 45268, phone 513-684-7298.

Clinical Trials Committee—Scheduled previously for Oct. 13, canceled.

Piedmont Oncology Assn. 2nd Annual Conference—Oct. 14, Winston-Salem, N.C. Bowman Gray School of Medicine Oncology Research Center. Simultaneous sessions for oncology nurses and physicians. Physicians contact Dr. Douglas White, nurses Chery Lane, RN, both at the center, 300 S. Hawthorne Rd., Winston-Salem 27103.

Southeastern Cancer Research Assn. 9th Annual Meeting—Oct. 15-16, Washington D.C. Contact Dr. Wayne Criss, SECRA, Howard Univ. Cancer Center, Washington D.C. 20060.

New Drugs in Cancer Therapy—Oct. 15-17, Brussels, symposium sponsored by European Organization for Research on Treatment of Cancer and NCI. Contact Dr. M. Rozencweig or Dr. M. Staquet, EORTC Data Center, Institut Jules Bordet, 1 rue Heger-Bordet, B-1000, Brussels, Belgium.

Cancer Control Grant Review Committee—Oct. 19-20, NIH Bldg 31 Rm 10, open Oct. 19, 8:30—9 a.m.

Small Cell Pulmonary Cancers—Oct. 19, Paris. Contact C. Jacquillat, Hospital St. Louis, 2 Place Dr. Fournier, 75475 Paris Cedex 10, France.

UICC European Regional Smoking Control Workshop—Oct. 19-21, Budapest. Contact K. Lapis 1, Inst. of Path & Exp. Cancer Research, Semmelweis Med. Univ., Ulloi ut 26, Budapest VIII, Hungary 1085.

American Cancer Society Third National Conference—Cancer Nursing—Oct. 19-20, Atlanta Hilton Hotel. Contact ACS, 4 West 35th St., New York 10001.

NCI Div. of Resources, Centers & Community Activities Board of Scientific Counselors—Oct. 22-23, NIH Bldg 31 Rm 6, 8:30 a.m. both days, open.

NCI Div. of Cancer Biology & Diagnosis Board of Scientific Counselors—Oct. 22-23, Bethesda Linden Hill Hotel, 9 a.m. both days, all open.

Cancer Care in the Community Hospital—Oct. 24, Our Lady of Lourdes Hospital, Binghamton, N.Y., 8:30 a.m. Contact Richard Horner, MD, Imogene Bassett Hospital, Cooperstown, N.Y. 13326, phone 607-547-3336.

Fifth Annual Cancer Symposium—Oct. 26-28, Vacation Village Hotel, San Diego, sponsored by Scripps Memorial Hospital Cancer Center. Also, Cancer Symposium for Nurses & Allied Health Care Professionals, Islandia Hyatt House, San Diego. Contact Nomi Feldman, Cancer Symposium Coordinator, 3770 Tansy, San Diego 92121, phone 714-453-6222.

UICC Conference on Clinical Oncology—Oct. 29-31, Lausanne, Switzerland. Also, Conference on Oncology Nursing. Contact Secretary General, PO Box 248, Lausanne 6, Switzerland.

Current Issues in Pediatric Oncology—Oct. 29-30, Hyatt on Union Square, San Francisco. Contact Margaret Stewart, RN, National Program Chairman, Assn. of Pediatric Oncology Nurses, Illinois Cancer Council, 36 South Wabash Ave., Suite 700, Chicago 60603.

Symposium on Abdominal & Extremity Tumors: Diagnosis and Surgical Management—Oct. 30-31, Chapel Hill, N.C. Sponsored by the Clinical Cancer Education Program and Univ. of North Carolina Cancer Research Center. Contact Pam Upchurch, Cancer Research Center, Box 30, MacNider Bldg., Chapel Hill 27514, phone 919-966-3036.

Recent Advances in Cancer Management—Oct. 30, New Orleans Fairmont Hotel. Sponsored by the Louisiana State Univ. School of Medicine. Program includes presentations on estrogen receptors in management of breast cancer, progress in chemotherapy of lung cancer, advances in management of gastrointestinal malignancies, and current approaches to the management of lymphomas. Contact Richard M. Paddison, MD, Div. of Continuing Education, LSU Medical Center, 1542 Tulane Ave., New Orleans 70112.

3rd Annual Symposium on Preventive Oncology: Cancer Prevention & Clinical Practice—Oct. 31-Nov. 1, Sheraton Palace Hotel, San Francisco. Contact Univ. of California (San Francisco) Continuing Education in Health Sciences.

Computer Tomography Scanning of the Brain—Nov. 4-6, NIH Clinical Center, Masur Auditorium, 9 a.m. each day. NIH consensus conference. Contact Dr. Michael Walker, director, stroke & trauma program, NINCDS, 7550 Wisconsin Ave. Rm 8A08, Bethesda Md. 20205, phone 301-496-2581.

Clinical Cancer Education Committee—Nov. 4, NIH Bldg 31 Rm 6, open 8:30—9:30 a.m.

21st Interscience Conference on Antimicrobial Agents and Chemotherapy—Nov. 4-6, Chicago. Contact R. Sarber, American Society for Microbiology, 1913 Eye St. NW, Washington D.C. 20006.

Fourth Annual San Antonio Breast Cancer Symposium—Nov. 6-7, La Mansion del Norte, San Antonio, Texas. Contact Marilyn Rennels, Office of Continuing Education, UTHSC, Floyd Curl Dr., San Antonio 78284, phone 512-691-6295.

Clinical Cancer Investigation Review Committee—Nov. 9-10, NIH Bldg 31 Rm 6, open Nov. 9, 8:30—9:30 a.m.

International Conference on Smoking and Youth—Nov. 9-11, Venice. Epidemiology, behavioral and social aspects, and prevention of smoking in young people. Contact P. Paccagnella, Universita degli Studi di Padova, Istituto di Igiene, Via Loredan 18, 35100 Padova, Italy.

Cancer 1981/Cancer 2001: An International Colloquium—Nov. 10-14, Shamrock Hilton Hotel, Houston. Sponsored by Univ. of Texas M.D. Anderson Hospital to mark the 10th anniversary of the National Cancer Program. Contact Dr. C. Stratton Hill Jr., UTMDA, 6723 Bertner Ave., Rm 115, Houston 77030, phone 713-792-2222.

Management of Advanced Cancer—Nov. 12-14, Amarillo. Inaugural Symposium of the Don and Sybil Harrington Cancer Center. Cosponsored by the Texas Tech Univ. Health Sciences Center. Contact Janie Brown, Office of the Medical Director, Harrington Cancer Center, 1500 Wallace Blvd., Amarillo 79106, phone 806-353-3571.

Current Concepts on Cancer Management: Successful Treatment and Its Consequences—Nov. 13-14, Fairmont Hotel, San

Francisco. Sponsored by Claire Zellerbach Saroni Tumor Institute of Mount Zion Hospital. Contact the Institute, PO Box 7921, San Francisco 94120, phone 415-567-6600 ext. 2125.

Biometry and Epidemiology Contract Review Committee—Nov. 18, NIH Bldg 1 Wilson Hall, open 9–9:30 a.m.

National Conference on Smoking and Health—Nov. 18-20, Waldorf Astoria Hotel, New York. Contact American Cancer Society, 4 West 35th St., New York 10001, phone 212-371-2900.

Seminar for Support Personnel Caring for Leukemia Patients—Nov. 20, Cornell Medical College. Contact Leukemia Society of America Inc., 215 Lexington Ave., New York 10017.

National Cancer Advisory Board—Nov. 30-Dec. 2, NIH Bldg 31 Rm 6, annual program review. 8:30 a.m. each day, all open.

FUTURE MEETINGS

Third Conference on Human Tumor Cloning—Jan. 10-12, Tucson, sponsored by the Univ. of Arizona Cancer Center. An optional primer course will be held Jan. 10, with a combination of invited and competitively selected papers presented Jan. 11-12. Deadline for abstracts is Nov. 1. Sydney Salmon and Jeffrey Trent are cochairmen. Contact Mary Humphrey, Conference Coordinator, Univ. of Arizona Cancer Center, Tucson 85724, phone 602-626-6944.

Breast Cancer: Conservation Surgery and Radiation Therapy Now—Feb. 27-28, Sheraton Fisherman's Wharf, San Francisco. 17th Annual San Francisco Cancer Symposium, sponsored by the West Coast Cancer Foundation, with the American Cancer Society California Division and St. Mary's Hospital and Medical Center. Contact WCCF, 50 Francisco St. Suite 200, San Francisco 94133, phone 415-981-4590.

Perspectives on Genes and the Molecular Biology of Cancer—March 2-5, Shamrock Hilton Hotel, Houston. 35th annual symposium on Fundamental Cancer Research. Topics include gene organization and evolution, gene transfer, regulation of gene expression, and novel applications of recombinant DNA technology to human cancer. Grady Saunders and Donald Robberson are cochairmen. Contact Stephen Stuyck, director, Public Information & Education, M.D. Anderson Hospital, 6723 Bertner Ave., Houston 77030, phone 713-792-3030.

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-CM-27506

Title: *Conduct in vitro cell culture screening of new materials*

Deadline: *Approximately Nov. 23*

The Developmental Therapeutics Program of the Div. of Cancer Treatment, NCI, is seeking the services of organizations having the necessary scientific and technical personnel and physical facilities to conduct in vitro cell culture screening of new materials.

Assignments will encompass the propagation and maintenance of stock cell lines, preparations of test materials, recording, computation, and evaluation of results; and summarization and reporting of results as specified. Testing will be performed in accordance with established NCI protocols. Materials to be tested and initial stock lines will be supplied by NCI.

Candidate organizations must have the capability to conduct cell culture screening and demonstrate evidence of general experience in standard cell culture techniques as well as specific experience in screening of drugs for cytotoxicity utilizing the KB, P388, and AC Glioma cell lines. Materials to be tested may include chemically hazardous or potentially carcinogenic compounds. Proposals must, therefore, include well qualified personnel with appropriate training and experience with hazardous materials. To be considered for such a contract, organizations must demonstrate established competence and resources for cell culture screening at a level of 3.5 staff years per year.

Proposals will be invited for a three-year incrementally funded contract period at approximate levels of 3.5, 5.0 or 6.5 staff years per year. These staff years will approximate a test capacity of 5,000, 10,000 and 15,000 tests per year respectively. A test as used here means a single material tested at three dose levels, each dose level in duplicate, with appropriate controls. The proposal should clearly indicate level or levels being proposed. The number of awards to be made and the level of effort of each will be at the discretion of the government.

Contract Specialist: Charles Lerner
RCB, Blair Bldg. Rm. 228
301-427-8737

RFP NCI-CP-11036-76

Title: *Marmoset colony for cancer research*

Deadline: *Approximately Nov. 27*

NCI has a requirement for an organization to operate and maintain a marmoset colony for cancer research. Included in this requirement is the operation of a breeding colony. The animals are cotton topped marmosets and white lipped marmosets.

Contract Specialist: J. Steve Metcalf
RCB, Blair Bldg. Rm. 119
301-427-8888

The Cancer Letter _Editor Jerry D. Boyd

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