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OHIO STATE BECOMES 18TH COMPREHENSIVE CENTER; UCLA NEEDS ONLY TO OVERCOME "MINOR" PROBLEMS

The Ohio State Univ. Cancer Research Center has joined the ranks of the "recognized" comprehensive cancer centers. NCI Director Frank Rauscher announced last week that OSU had become the 18th institution so identified under the terms of the National Cancer Act "to conduct a broad range of basic and clinical cancer research and related training, and to develop and demonstrate the best methods of cancer prevention, diagnosis, treatment and rehabilitation."

David Yohn is director of the center. NCI support for OSU currently totals $3.5 million, including $1.1 million for 10 contracts in cancer prevention, biology, treatment and control; $1 million for 19 research grants; and $112,000 for training grants.

Clinical research at OSU includes immunotherapy of lung cancer and leukemia, treatment of brain tumors, and studies of potential anticancer agents. The center conducts a regional outpatient chemotherapy program in Columbus and four other Ohio communities, and clinical cancer

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In Brief

CANCER PROGRAM "STRENGTHENED" NIH, REPORT FROM BIOMEDICAL RESEARCH PANEL CONTENDS

BIOMEDICAL RESEARCH Panel has finished writing its report and sent it to the printer. Benno Schmidt, a member of that panel as well as chairman of the President's Cancer Panel, said, "On the whole it is reasonable, and is not unfair to the cancer program." One conclusion is that the cancer program is "going extremely well," Schmidt said, "and that not only has the cancer program not weakened NIH but has strengthened NIH". . . . **GUY NEWELL**, NCI deputy director, back from a scientific seminar on breast cancer in Japan, said evidence was presented by Japanese epidemiologist Takeshi Hirayama of a direct relationship between diet and breast cancer. Incidence in Japan is about 12 per 100,000, compared with 60 per 100,000 in the U.S., but the rate there is climbing rapidly. The Japanese are experimenting with the echograph technique for mass screening; their treatment consists entirely of radiotherapy or surgery plus radiotherapy but are taking a close look at U.S. results with adjuvant chemotherapy. . . . **NURSING SEMINAR**, "Horizons in Cancer Care: Colon and Rectal Cancer" is scheduled for May 26 at the American Hotel in Culver City, Calif. The ACS Los Angeles Coastal Cities Unit will sponsor the seminar, chaired by RNs Alyson Bochow and Patricia Smith. . . . **NATIONAL CONFERENCE** on Radiation Oncology, sponsored by ACS in cooperation with the American Society of Therapeutic Radiologists, American College of Radiology and American Radium Society, is scheduled May 27-29 at the San Francisco Hilton. Registration forms are available from ACS divisions and from S.L. Arje, 777 Third Ave., New York 10017.

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OHIO STATE'S "TOP NOTCH" PROGRAMS WIN IT COMPREHENSIVE DESIGNATION

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education programs for dental and medical students at the university. The center's cancer control program is developing projects to train clinical oncology nurse specialists.

Basic research at the center includes studies in biochemistry, radiology, microbiology and immunobiology. Yohn is principal investigator in a project studying the interaction between chemical and viral carcinogens.

The university has committed to the center substantial space for cancer research, clinical care and community outreach programs, with almost half this space for laboratory research.

The announcement of OSU's new status followed by less than a month the report by the General Accounting Office, the congressional watchdog agency, which called attention to the lack of balanced geographic distribution of the 17 existing comprehensive centers (*The Cancer Letter,* March 26). Rauscher, in his statement, appeared to be acknowledging that GAO's criticism was a major factor in the selection of OSU as No. 18:

"We are giving careful attention to achieving geographic distribution of centers throughout the United States," Rauscher said. "The Ohio Valley region, with a population of 18 million in Ohio, West Virginia, eastern Kentucky and western Pennsylvania, will benefit greatly in the years ahead from the development of this center. Already it is providing leadership in developing multifaceted community outreach programs and involving members of the medical profession practicing within the area it serves."

However, the GAO report had nothing to do with the selection or the timing of the announcement, according to Simeon Cantril, director of the Cancer Centers & Treatment Program in the Div. of Cancer Research Resources & Centers.

Ohio State, along with UCLA and New York Univ., had undergone extensive review by the National Cancer Advisory Board and its Subcommittee on Centers subsequent to primary review. Deficiencies were noted in all three when the applications were presented to the Board last November. The Board agreed that, with Ohio State and UCLA, once evidence that those deficiencies had been corrected, Rauscher could proceed with the comprehensive designation without bringing the applications back to the Board. Further Board consideration of a new NYU application was requested.

Ohio State responded with a new proposal which "improved themselves in all respects, in all areas of the critique," Cantril said. Those were primarily administrative and fiscal changes, involving major commitments of resources and personnel. NCI staff felt that OSU had complied with the Board's requests, and that there was no reason for delaying the recognition any further.

Cantril insisted that geographic distribution considerations will have no bearing on UCLA and NYU applications (the USC-Los Angeles County and Memorial-Sloan Kettering comprehensive centers are already there). The problems with UCLA's application are relatively minor; apparently, submission of a new proposal in which those deficiencies have been reduced or eliminated will result in an immediate recognition announcement by NCI.

One area where most comprehensive center applications fall down, according to Cantril, is the need for well developed, well run, coordinated cancer control activities. OSU has a good control organization, supported in multiple ways, with "top notch" programs. NCAB found that most of its programs were "well run, with good people. No major point of the 10 characteristics (by which a comprehensive center is determined) is missing," Cantril said.

No other centers seeking comprehensive status have indicated yet they are ready for NCAB review, other than UCLA and NYU. About 25 have sent letters of intent.

Despite pressures from Congress and from administrators at the growing number of would-be comprehensive centers, NCI has indicated it will not be in any hurry to complete the nationwide network. UCLA may well be the only other new designee this year, and NYU possibly next year. In those two cases, demographic factors, along with institutional excellence, most likely would overcome any political reaction based on geography. There's little doubt that New York City and Los Angeles-Southern California with their huge populations could effectively use at least one more comprehensive center each.

The last comprehensive cancer center may not be named for another 10-15 years. Some areas may never have one, if the biomedical capability is never developed. There may be some failures, with centers losing their comprehensive status if reviewers determine they aren't doing the job, or if the centers determine themselves to change direction.

ADVANCES IN RADIO-IMMUNOTHERAPY TOLD; WRITERS PREMATURE WITH ONE

Most of the encouraging reports in the last 12-24 months which have indicated substantial, major (even "mind boggling," in the words of NCI's Vincent DeVita) progress in some areas of cancer treatment have been based for the most part on chemotherapy or chemotherapy following surgery.

Reports are coming through now that immunotherapy and radiotherapy—alone, combined with each other, combined with drugs and/or surgery—are showing some results that may compare with the startling advances reported by Bernard Fisher and Gianna Bonadonna using adjuvant chemotherapy in breast cancer. These latest reports deal with the big-

gest of cancer killers—colon-rectal and lung.

Jordan Gutterman, associate professor of medicine in the Dept. of Developmental Therapeutics at M.D. Anderson, presented results of a variety of immunotherapy studies, most of them still in progress, in testimony to the Senate HEW Appropriations Subcommittee.

—Seventy-one breast cancer patients with positive lymph nodes have been treated at M.D. Anderson with CMF (cytoxan, methotrexate, 5-FU) plus BCG immunotherapy following mastectomy. There have been only six recurrences and one death with a median followup time greater than one year.

—"Perhaps the most important advance in bimodality therapy supported by NCI during the past year has been the demonstration that the administration of active immunotherapy with repeated weekly BCG immunizations plus the 5-FU, adriamycin, cytoxan combination has resulted in a significant prolongation of survival for patients with disseminated breast carcinoma," Gutterman said.

—Colon and rectal cancer. An estimated 99,000 cases will develop in 1976; 49,000 will die of those cancers this year. Primary care has been surgical, but when regional lymph nodes are involved, there is an average disease free interval of only 16 months and five-year survival of only 32%. Studies at MDA supported by NCI and the National Large Bowel Cancer Project were started three years ago using chemotherapy (5-FU) plus BCG or BCG alone, Thirty three patients with positive lymph nodes discovered at surgery received BCG and 50 patients received the 5-FU-BCG combination. The disease free interval and survival were compared to similar data for a group of historical controls consisting of 70 patients who had surgery only at MDA from 1962 to 1971, Half the patients among the surgical controls relapsed at 20 months. Only six of 33 patients treated with BCG and 8 of 50 treated with 5-FU plus BCG have relapsed with a median followup time of 22 months. Half the patients in the control group died within three years following surgery; none of the patients treated with immunochemotherapy has died, and only two of those treated with BCG alone have died.

"This is a significant result," Gutterman said. "This data combined with the data on breast cancer indicate that combined modality chemoimmunotherapy or immunotherapy alone have an important and exciting potential for improving the inevitable poor prognosis of patients with these common cancers."

—Advanced lung cancer. The average patient with chemotherapy lives approximately 6 to 8 months. In a study on the use of a vaccine made of partially purified fraction of the BCG cell wall combined with chemotherapy reported from Japan, there has been more than a doubling of the overall survival in patients with advanced metastatic lung cancer. Similarly, using antigens purified from the patients' lung cancer cells in combination with mycobacterial antigens, a group in the U.S. in collaboration with a group in Canada, have shown at least a doubling of survival among lung cancer patients. The bacterial preparation, C. parvum, has also resulted in a doubling of survival among lung cancer patients when used in combination with chemotherapy.

—Early operable lung cancer. "Two very provocative and exciting studies with immunotherapy alone have just been reported in patients with operable lung cancer who have a poor prognosis," Gutterman said. A group in Albany injected BCG into the pleural space after surgery. None of the 17 patients with operable stage 1 lung cancer has had recurrences if they received intrapleural BCG. In contrast, 9 of 22 comparable patients treated with surgery without BCG have had recurrent disease. This suggests that delivery of BCG organisms into the site of the tumor can mobilize the immune defenses to delay or prevent the recurrence of clinical evidence of tumor.

Using the synthetic immunopotentiator, Levamisole, a group in Belgium has also reported prolongation of the disease free interval and survival for patients with operable lung cancer. Thus, both systemic and regional forms of immunotherapy have delayed recurrences and prolonged survival in early and potentially cureable disease; these approaches may lead to increased cures in patients with resectable lung cancer.

—Leukemias. An estimated 21,000 new leukemia cases will be diagnosed in 1976 and 15,000 estimated deaths will occur. In 1969, it was first reported that immunotherapy with BCG or BCG plus leukemia cell vaccine could prolong the remission and survival of children with acute lymphoblastic leukemia following intensive chemotherapy, radiotherapy, and surgery. Trials of immunotherapy in adults with acute leukemia were initiated early in 1971. In the last 12-18 months there have appeared nine published trials which demonstrated that immunotherapy added to chemotherapy prolonged the durations of remission and survival of patients with acute myeloblastic leukemia, compared to chemotherapy alone.

In the U.S. studies from the Southeastern Cancer Cooperative Group and from MDA demonstrated that treatment with living BCG organisms added to chemotherapy prolonged remissions and survival. Remissions which occurred with chemotherapy in about 70% of patients lasted around one year (median). In the studies from MDA, BCG immunization added to chemotherapy doubled the durations of these remissions to approximately two years. The median or average survival of acute myeloblastic leukemia achieving remission with chemotherapy is about 18 months. However, the median survival of patients who were treated with immunotherapy plus chemotherapy at MDA was extended to a little more than three years. Forty percent of these patients are still alive beyond the three year period. The majority of these patients are still free of any evidence of leuk-

emia and are approaching five year post treatment mark.

Similar data are now being reported throughout this country and Europe with various forms of bacterial vaccines with or without tumor cell vaccines. Thus, from New York, two studies using a nonliving fraction of the BCG called methanol extracted residue (MER) used with or without patient tumor cells have more than tripled the duration of survival. Similar positive reports from Israel with the use of MER plus chemotherapy appeared recently. Also, a vaccine from another bacteria called the Pseudonomas vaccine, has more than tripled the duration of remission and survival in a study reported from Sloan Kettering Institute.

Another recent approach to the treatment of adults with acute leukemia using immunotherapy has been reported from MDA. Patients who remained without clinical evidence of recurrent leukemia for one or more years on chemotherapy alone were given newer drugs (not available at the start of these patients' therapy) at the end of this period. This is called late consolidation chemotherapy. At thus juncture (following late consolidation chemotherapy) all chemotherapy was stopped. The initial seven patients received no further therapy, but three relapsed within six months and died within one year. A subsequent group of 31 patients were immunized with BCG on a weekly basis for three months and then every other week. Only six of these patients have had recurrent leukemia and only one died within the followup period of three years. The late consolidation chemotherapy with new agents plus the use of the BCG after patients have been in remission for long periods of time on chemotherapy alone appear to be associated with significant prolongation of survival and potential cure of this disease.

—Cancer of the kidney and bladder. An estimated 45,000 new cases with an estimated 17,000 deaths will occur in 1976. Cancer of the kidney, classically, had responded poorly to chemotherapy. However, it has been known for a number of years that this cancer seems to be under a very unique host control. In "exciting" preliminary data from California, Gutterman said, a fraction derived from immune lymphocytes called immune RNA has been used in the treatment of metastatic renal carcinoma. Preliminary evidence suggests that repeated immunization with this interesting material has resulted in a significant antitumor effect in at least one-third of the patients.

Bladder cancer has a unique advantage of being anatomically located in a strategic way so that immunotherapy can be applied regionally or locally. It is known from experiments with animal models that the most effective form of immunotherapy is direct inoculation of the tumor with immunotherapeutic material. In a preliminary study from Canada, eight patients with locally recurrent bladder tumors who were treated with BCG directly into the bladder have had no recurrences over the last six months compared to 60 recurrences in the same group in the six month period prior to BCG immunotherapy. "This work needs to be extended and confirmed, but preliminary data are exciting and seem to confirm the efficacy of local immunotherapy," Gutterman said.

"Research programs receiving support from NCI have begun to yield extraordinarily important data in experimental models with the development of more refined immunotherapeutic reagents. It is clearly recognized that the materials which have already prolonged survival for cancer patients such as BCG and Corynebacterium parvum are crude materials. Thus, these materials must be considered 'Model T Fords' of cancer immunotherapy. Experimental studies supported by NCI during the past year have begun to produce more purified and more active reagents which are extracted from these microorganisms and tumor cells. Continued and increased support for experimental studies for purification, extraction, and eventual synthesis of these materials should produce major progress in the control of human cancer."

Ralph Johnson, chief of NCI's Radiation Oncology Branch, startled participants in the American Cancer Society science writers' seminar recently when he told them of exceptionally promising but very preliminary results with new radiochemotherapy for undifferentiated small cell lung carcinoma. Unfortunately, the writers ignored his warnings about the extreme toxicity and dangerous complications of the treatment, and newspaper headlines around the country trumpeted a lung cancer "cure."

Since then, Johnson has been besieged with requests for details of his protocol which he refuses to give. "The enormous toxicity and serious complications make it prohibitive to give this treatment anywhere else (than the NIH Clinical Center where Johnson and his colleagues closely monitor the limited trials)," Johnson said. "This has caused enormous grief for lung cancer patients and their relatives around the country, and created unbelievable pressures on their physicians."

Johnson said he needs at least another year before a feasible treatment program can be extrapolated from his findings. If the preliminary results hold up, it could result in the first effective treatment for small cell (oat cell) carcinoma and reduce substantially the 15,000 deaths caused by the disease every year in the U.S.

Johnson's approach uses short term but intensive chemotherapy together with radiotherapy, the latter being given not only to areas of bulky disease but also to the central nervous system where drug permeability is limited. "This integrated treatment has yielded an unparalleled complete remission rate of 95% (20 of 21 consecutive patients, the majority of whom presented with metastatic disease outside the thorax)," Johnson told the writers. Eighteen of the 21 patients are alive for periods ranging from four to 16 months;

the normal survival rate for the disease is three to six months. Sixteen of Johnson's patients have remained continuously free of disease since cessation of treatment. Only one patient has died from cancer while the other two deaths were caused by intercurrent illness and there was no evidence of cancer at autopsy.

Harmar Brereton and Harry Kent collaborated with Johnson in the study.

Norma Wollnar, associate professor of pediatrics at Cornell and staff member of Memorial Sloan Kettering, told the ACS seminar participants of results using radiochemotherapy on children with non-Hodgkin's lymphoma.

One hundred nineteen children were studied from 1964 until March 1976. Seventy-six percent of 43 patients treated prior to 1966 (non-protocol group) had far advanced disease. Of these only 11% survived free of disease. From 1966 to 1971, 18 patients received the LSA_1 protocol (high dose cyclophosphamide and radiation therapy). Of these only 33% survived free of disease. From 1971 on 58 patients were treated on a protocol called LSA_2L_2. Eighty percent had far advanced disease. Seventy-two percent of these patients are surviving, of which 70% are free of recurrence or metastases. Sixty-four percent of the latter group of patients are off therapy.

"This improvement in the survival rate is quite encouraging and, despite the intensity of the treatment, these children are all active and attending school regularly," Wollner said. The median observation time for patients off therapy is 45 months, and for the entire group (on and off therapy) 37 months.

Wollner described the LSA_2L_2 protocol as attempting to do the following:

—Administer an initial agent to provide fast and maximum decrease in bulky disease (cyclophosphamide in high dose push), (lesions measuring 5 cm or more).

—Provide simultaneous radiation therapy to bulky sites early in the disease.

—Initiate an intensive treatment with induction, consolidation and maintenance as for leukemia to avoid marrow involvement in those that did not exhibit it initially—and to treat as for leukemia those that presented with marrow metastases.

—To allow for maximum protection of the central nervous system during the entire treatment.

UICC GRANT PROGRAMS AVAILABLE FOR INTERNATIONAL ACTIVITIES

The International Union Against Cancer (UICC) has announced the availability of four grant programs it administers which are designed to facilitate and encourage international cooperation and exchange of information related to cancer research.

International Cancer Research Technology Transfer Program (ICRETT)

Established to promote direct and rapid transfer of information about new or improved technology or methodology between two or more investigators located in two different countries who are working in areas of basic, clinical or behavioural research in order to further the progress of cancer research. Purpose is to enable investigators from two different countries to:

1. Carry out brief research which will develop, improve or modify new or specialized technology or methodology and will clearly contribute towards the progress of cancer research.
2. Engage in short-term on-the-spot collaboration required for comparing the results of and detect causes of discrepancies in the results of parallel or related research in different countries.
3. Meet together for intensive discussion and/or demonstration so that new or improved technology or methodology developed by an acknowledged expert can be used by investigators in another country.

Funds are provided by the International Cancer Research Bank of the U.S. National Cancer Institute. They permit investigators of any nationality (not open to employees of U.S. government) to visit a research center or centers in another country for a period not exceeding 21 days. Funds will not be provided for attending scientific meetings of a general nature or for supporting a series of lectures or seminars in one or more countries.

There will be no deadline for the receipt of applications which may be submitted at any time throughout the year. Each successful applicant will receive a travel allowance calculated on the basis of the tourist economy class air fare and a living allowance sufficient to cover board and lodging expenses. No allowances will be paid for dependents.

Write to: International Union Against Cancer, Conseil-General 3/1205 Geneva, Switzerland.

International Cancer Research Workshop Programme (ICREW)

Established to increase the frequency, speed and efficiency of direct information exchange between small groups of cancer investigators who, although working in different countries, are all active in the field of basic, clinical or behavioural research related to cancer. ICREW will provide funds to support workshops designed to bring together a small number of promising scientists of any nationality (in accordance with U.S. regulations this program is not open to employees of U.S. government agencies; nevertheless, such employees may attend these workshops, using funds from other sources) in order to:

1. Discuss or demonstrate newly developed or improved specialized technology or methodology.
2. Discuss methods for overcoming obstacles or for resolving apparent disagreement and differences of opinion impeding further progress in a given field of study.
3. Discuss new approaches that might be applied to solve specific problems in cancer research.

4. Discuss the organization of international bilateral or multilateral studies related to cancer research.

These workshops should preferably have no more than 10 to 12 participants and a participation of over 25 persons will be accepted only under exceptional circumstances.

Funds are provided by the International Cancer Research Data Bank of the U.S. National Cancer Institute. They will be available to cover at least 30% of the total cost of a workshop up to a maximum of $10,000 for each workshop. Exceptions to these funding limits may be allowed under exceptional circumstances, at the discretion of the funding agency.

Under no circumstances will the UICC assume any responsibility in the organization of the workshop; however, the reviewers may make recommendations concerning the workshop contents and membership.

Applications must be submitted on the prescribed form which is avilable on request from the Geneva office of the UICC. When requesting application forms, specify the proposed site and location for the workshop; the UICC per diem rate for the location will then be given.

To be eligible, the application must specify the title of the workshop, the proposed site and location, the starting and finishing dates, a budget itemizing the estimated costs, the amount of financial support requested and the amount of funds provided from other sources.

Closing dates for the receipt of applications will be: Jan. 1, March 1, June 1 and Sept. 1.

Traveling expenses will be calculated on the basis of tourist/economy scheduled airline rates or first-class railway fares. Each participant will receive a living allowance sufficient to cover board and lodging expenses; no allowance will be paid for dependents.

Write to: International Union Against Cancer, Conseil-General 3/1205 Geneva, Switzerland.

The Yamagiwa-Yoshida Memorial International Cancer Study Grants

The Yamagiwa-Yoshida Memorial International Cancer Study Grants are supported by funds made available by the Japan National Committee for the UICC. They are designed to enable investigators of any nationality to gain experience in, or make comparative studies of, special techniques in both the biological and clinical aspects of cancer research.

These grants are available only for study outside the grantee's country of residence since they are intended to accelerate and encourage international collaborative activities. The study grants will not be awarded for the purpose of visiting a number of institutes or of solely participating in congresses, conferences and symposia. They will be awarded for periods not exceeding 90 days.

Each grantee will receive a travel allowance, equivalent to tourist/economy air fare, and a per diem allowance sufficient to cover board, lodging and incidental expenses; however, no allowance will be paid for dependents.

The closing dates for receipt of applications will be June 30 or Dec. 31 of each year.

Write to: International Union Against Cancer, P.O. Box 400, 1211 Geneva 2, Switzerland.

American Cancer Society-Eleanor Roosevelt International Cancer Fellowships

UICC, wity the funds provided by the American Cancer Society, will award fellowships for research on cancer.

The awards will be granted to experienced investigators who have demonstrated their ability for independent research and who wish to broaden their experience by a period of study at a single institution in another country.

Fellowships will be granted only to persons on the staff of universities, teaching hospitals, research laboratories or similar institutions. Awards will be made to investigators who are devoting themselves either to the experimental or the clinical aspects of cancer research.

Fellowships will not be granted to persons who wish primarily to perfect their training in methods of cancer detection or in therapeutic techniques, or who wish to visit briefly several institutions abroad. The duration of the fellowships ordinarily will be one year but this period may be longer or shorter in special circumstances.

The stipend will be based on the current salary of the applicant and the salary of comparable qualifications in the place where the applicant expects to study. An allowance will be made for the cost of travel of the fellow and of those dependents who will accompany him from his place of residence to the institution where he will work, and return.

Deadline for receiving applications and supporting documents: Sept. 1. Successful applicants may begin their fellowship at any time during the 12 months period beginning March 1.

Write to: International Union Against Cancer P.O. Box 400, 1211 Geneva 2, Switzerland.

RFPs AVAILABLE

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

RFP NO1-CP-65779-56

Title: *Anorexia in adult and pediatric cancer patients*

Deadline: *May 12*

The Diet, Nutrition & Cancer Program (DNCP) was established by the National Cancer Institute in response to a mandate in the 1974 amendments to the National Cancer Act. This mandate specified that information should be developed and disseminated on the relationship of diet and nutrition to the etiology of cancer and the therapy and subsequent rehabilitation of the cancer patient.

The objective of this project is to collect detailed dietary, nutritional, anthropometric, psychological, metabolic and physiological data on a wide variety of adult and pediatric cancer patients and suitable control patients. These data will be analyzed to develop hypotheses on the causes of anorexia and the interrelationships between various facets. These data will also allow the orientation of future research towards developing methods for increasing food intake, studying the altered metabolic processes associated with specific types of cancer or a combination of research projects in these two potential research areas.

Contract Specialist: Mel Hamilton
Cause & Prevention
301-496-6361

RFP NO1-CP-65789-69

Title: *Identification of past, ongoing and future dietary and nutritional surveys and cancer epidemiology studies*

Deadline: *May 13*

The objective of this project is to identify and describe past, ongoing and future dietary and nutritional surveys and cancer epidemiology studies. This study will be used to determine sources of existing information which may be reanalyzed to test specific hypotheses or to serve as a base for follow-up studies and to identify ongoing and planned studies which may be useful to Diet, Nutrition & Cancer Program projects. Prospective offerors will be expected to be familiar with dietary and nutritional surveys and cancer epidemiology studies.

Contract Specialist: Linda Waring
Cause & Prevention
301-496-6361

RFP NO1-CP-65784-69

Title: *Survey of dietetic practices and procedures used in feeding cancer patients*

Deadline: *May 13*

The objectives of this project are (1) to determine the current practices and procedures used by dieticians and associated health personnel in feeding cancer patients; (2) to evaluate the various approaches being used; (3) to report the evaluation to dieticians, clinicians and other interested professionals; (4) and to propose a series of dietary intervention protocols which could be scientifically tested and evaluated. Prospective offerors should have knowledge of diet therapy and ability to conduct and analyze surveys.

Contract Specialist: Linda Waring
Cause & Prevention
301-496-6361

RFP NO1-CP-65785-69

Title: *Development of a guidebook for inclusion of dietary and anthropometric parameters in cancer epidemiology studies*

Deadline: *May 13*

The objective of this project is to develop guidelines for investigators interested in collecting diet, nutrient, and anthropometry data as a component of epidemiology studies. For purposes of this program, special attention will be given to the study of cancer epidemiology. The output of this project will be compiled as a guidebook. Prospective offerors should have a familiarity with survey techniques for dietary and nutrient assessment along with familiarity of epidemiology survey techniques.

Contract Specialist: Linda Waring
Cause & Prevention
301-496-6361

RFP NO1-CP-65788-59

Title: *Correlation of epidemiologic and metabolic parameters*

Deadline: *May 12*

Formulation of specific hypotheses on the role of diet and nutrition in cancer development and cancer prevention and to develop knowledge on possible interrelationships. In addition, a basic body of knowledge needed for the rational development and logical progression of research in this area will be developed. This project will be oriented towards metabolic epidemiology, i.e., the correlation of metabolic factors and with cancer incidence. Four topical segments are to be addressed with specific task requirements.

Contract Specialist: Harold Smith
Cause & Prevention
301-496-6361

RFP NO1-CP-65794-68

Title: *Optimal nutritional support as an adjunct to cancer therapy in the pediatric patient*

Deadline: *May 12*

The objectives of this multidisciplinary-multi-institutional cooperative study are to determine whether optimal nutritional support alters the rate of tumor growth and alters the status of the pediatric cancer patient such that the patient's tolerance to antineoplastic therapy is increased and the efficacy of therapy is increased; to determine whether specific antineoplastic therapy impairs utilization or causes complications; and to determine how optimal nutritional support affects the host-tumor response and host-

immune response to cancer therapy.

Prospective offerors shall submit separate business and technical proposals for each or any of the following tumor type/therapy modalities: 1) mixed modality—head and neck (radiotherapy with or without concomitant chemotherapy); 2) mixed modality—abdomen and pelvis (radiotherapy with or without concomitant chemotherapy); 3) chemotherapy—leukemia, acute myelogenous or lymphoblastic at first or second relapse, and 4) chemotherapy—neuroblastoma.

Prospective offerors should have a minimum of 40 patients and a maximum of 100 equally divided between control and optimal nutritional support treatments to allow each segment proposed to be completed in a 12 month period. Several awards are anticipated.

Contract Specialist: Joe Federline
Cause & Prevention
301-496-6361

RFP CDC-99-OSH-136(6)

Title: *Retrospective cohort mortality study of the northwest plywood, pulp and paper industries*

Deadline: *Approximately May 10*

Study to examine the employment and mortality experience of persons working in the Northwest plywood, pulp and paper industries to determine whether they are experiencing excess mortality from malignant diseases which are related to their employment. The study will attempt to identify agents or processes which may be responsible for the increased mortality. To the extent that the study is successful in identifying causative agents or processes, the data will serve as a foundation on which to build a program of malignant disease prevention in these industries.

Contracting Officer: National Institute for Occupational Safety & Health
5600 Fishers Lane Rm 1-58
Rockville, Md. 20852

CONTRACT AWARDS

Title: Genetic polymorphisms in high and low risk breast cancer families
Contractor: Univ. of Texas System Cancer Center—M.D. Anderson Hospital, $43,743.

Title: Cultivation of normal and malignant human mammary cells: Hormone dependent susceptibility of mammary tissue to transformation
Contractor: Pennsylvania State Univ., $66,000.

Title: Study of the effects of nucleic acid preparations on the biological properties of mammary carcinomas
Contractor: Sloan-Kettering Institute, $85,000.

Title: Protein nucleic acid interactions in transcriptional controls of normal and malignant cells
Contractor: Duke Univ., $45,700.

Title: Isolation of prolactin cells from the human and rat adenohypophysis: A new approach to the study of control of prolactin secretion in relation to mammary tumors
Contractor: Pennsylvania State Univ., $77,000.

Title: The response of the embryonic mammary gland to androgenic hormones
Contractor: Institut for Molekularbiologie, Salzburg, Austria, $50,000.

Title: Study effects of nucleic acid preparations on the biological properties of mammary carcinomas
Contractor: Baylor College of Medicine, $80,000.

Title: Study of mammary gland responsiveness to multiple hormones
Contractor: Univ. of North Carolina, $89,400.

Title: Biomedical computer software services to support clinical trials
Contractor: EG&G/Mason Research Institute, $103,301.

Title: In vitro sensitization of human lymphocytes
Contractor: Sidney Farber Cancer Center, $60,301.

Title: NCI histocompatibility testing center
Contractor: Duke Univ., $234,192.

Title: Transfer factor therapy of sarcoma
Contractor: Ohio State Univ., $89,265.

Title: The role of macrophages in the immune response
Contractor: Palo Alto Medical Research Foundation, $110,970.

Title: Breast cancer detection demonstration project
Contractor: Univ. of Arizona, $284,933.

SOLE SOURCE NEGOTIATIONS

Proposals are listed here for information purposes only. RFPs are not available.

Title: Group testing for screening carcinogens
Contractor: UCLA.

Title: The psychological aspects of breast cancer
Contractor: Stanford Research Institute.

Title: Health education program for the Tyler asbestos workers and their families
Contractor: Texas Chest Foundation/East Texas Chest Hospital, Tyler, Texas.

Title: Study and production of avian tumor viruses
Contractor: Life Sciences Inc.

The Cancer Letter—*Editor* JERRY D. BOYD

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