THE CANCER LETTER
RESEARCH EDUCATION CONTROL

Vol. 1 No. 18
May 2, 1975

Subscription $100 per year

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RAUSCHER MAY SET UP NEW OFFICE TO MONITOR, COORDINATE RFPs AND GRANTS, STOP DUPLICATION

A new office may be established within NCI with the responsibility of monitoring research grant and contract proposals coming out of the institute's five divisions. More coordination, less duplication and a keener awareness by program directors of what is going on in each other's area would be the objective.

Director Frank Rauscher tackled one of the most troublesome problems involving lack of coordination when he transferred some treatment programs from the Div. of Biology & Diagnosis to the Div. of Cancer Treatment (***The Cancer Letter,*** April 18). The new position, which

(Continued to page 2)

In Brief

COOPER SAYS HEW MAY STOP TAKING NEW CONSTRUCTION GRANTS; CANCER ACT DOES NOT GIVE HIM THAT RIGHT

TED COOPER'S support in getting the Office of Management & Budget to release funds for new construction (***The Cancer Letter,*** April 25) was appreciated by NCI executives, but they also were less than happy about a letter the assistant secretary for health sent to OMB. Cooper told OMB that "if it is now your position that national objectives can be better achieved by imposing a ban on new construction, the department no longer should accept applications for new construction grants." Neither Cooper nor anyone else in government has the authority to stop NCI from accepting, reviewing and rating construction grants and approving them for funding; that authority is explicit in the National Cancer Act. OMB, acting for the President, claims it has the right to refuse to release funds for new construction. That is a claim ripe for a court challenge, particularly if Congress earmarks money for construction in the appropriations bill. . . . **BENNO SCHMIDT** on NCI contract review: "You may have created external peer review mechanisms for contracts that are as severe, as efficient and as good as those for grants, but you haven't convinced a large part of the outside world. To the extent we move into program project grants (cancer research emphasis grants) in areas previously supported by contracts, it is important to set up top peer review." CREG applications will get the same review treatment as any regular grant, by study sections in the Div. of Research Grants. Special study sections will be formed when DRG finds that none of the existing ones are competent to review a particular program. . . . **ENVIRONMENTAL CARCINOGENESIS** programs are supported by NCI with more than $100 million a year, at the fiscal 1975 level, Director Frank Rauscher told the President's Cancer Panel. Rauscher had his staff survey all NCI programs to identify those related to environmental carcinogenesis, to answer critics' claims that not enough money was going into prevention. The $100 million does not include the virus program.

DCT's Experimental Therapeutics Program Outlined To Board . . . Page 2

Rauscher Levels With Congress, Says NCI Needs More Money . . . Page 5

RFPs Available . . . Page 7

A.D. Little Gets $2.4 Million Contract Award . . . Page 8

Sole Source Negotiations . . . Page 8

NCAB TO CONSIDER CONSTRUCTION GRANTS TOTALING $9 MILLION

(Continued from page 1)

probably would be set up within Rauscher's office, would cut across division lines to provide Rauscher with information on overlaps and duplication involving all extramural research.

Rauscher told the President's Cancer Panel that he was considering ways to better coordinate through his office RFPs in relation to new grants.

"People have complained that they get low priority scores on their grant applications, then see an RFP advertised which would do the same thing," Rauscher said. The reverse also sometimes occurs, with a grant being funded after someone else's unsolicited contract proposal has been turned down for the same type of project.

Rauscher said "it doesn't happen as frequently as it could happen," but Panel Chairman Benno Schmidt said it seemed clear to him that there isn't "close enough coordination" among NCI's programs.

James Peters, whose Div. of Cause & Prevention supports more contract research than any other division, observed that "critics sometimes read the RFP announcements but don't see the RFP itself," and then make their complaints about duplication when in fact the projects in question have some major differences.

"If you are suggesting that some complaints come from people who don't know what they are talking about, I think it is just possible that that does occur," Schmidt said.

Schmidt has had to spend a lot of time lately defending the cancer program from attacks by persons who don't know what they are talking about. The most recent was an editorial in the *New York Times* which charged that the National Cancer Act of 1971 was based on representations that a cure for cancer could be obtained within a few months.

"That is absolute nonsense," Schmidt fumed. The *Times'* contention that the cancer program is a "political pork barrel" and that funds are distributed to those institutions with the most political influence are also ridiculous, Schmidt said.

Other matters brought to the Panel's attention included:

- Thomas King, director of the Div. of Research Resources & Centers, said that the National Cancer Advisory Board would consider construction grants totaling $9 million at its June meeting. Some would be for new construction, and King warned that even with NCAB approval, the Office of Management & Budget might still refuse to release those funds.
- NCI has been asked by FDA to do a scientific assessment of cyclamate. It has never been declared to be a carcinogen, and FDA wants NCI to make a determination one way or another. Peters said a committee will determine what studies may be required.

EXPERIMENTAL THERAPEUTICS CONTRACT, INTRAMURAL PROGRAM OUTLINED TO BOARD

Some insights into the experimental therapeutics program operated by NCI's Div. of Cancer Treatment were presented to the division's Board of Scientific Counselors recently by the director of the program, Vincent Oliverio. The program makes extensive use of research contracts, and will use the new funding mechanism, cancer research emphasis grants. It also carries on a significant intramural research program.

Oliverio's remarks follow:

As one of the five major subdivisions of the Div. of Cancer Treatment, experimental therapeutics has primary responsibility for an intramural research program and an extramural contract program concerned with the pharmacology, toxicology, and mode of action of cancer chemotherapeutic agents and other drugs used as single agents or in combined modalities. The program also conducts a major effort in molecular biology and biologic markers. Thus, studies within this program cover a broad range of drug-host phenomena at the whole body, cellular and molecular levels.

Organizationally, the intramural and contract research programs are shared among the office of the associate director and four discrete but closely related laboratories—toxicology, chemical pharmacology, and tumor cell biology.

The laboratory of toxicology under the direction of A.M. Guarino has responsibility for supervision of large animal toxicologic studies of antitumor agents prior to their intorduction into the clinic. In the past this role was carried out by a rather diffuse contract mechanism in which the laboratory directed the studies, summarized the information, and assisted in the submission of an investigational new drug application (INDA) to the Food & Drug Administration before a phase I clinical trial was initiated. Because of serious limitations in the numbers of in-house personnel which could devote their efforts to carrying out this responsibility effectively, especially in view of an anticipated increase in active agents for toxicological evaluation, DCT awarded a prime contract after extensive open competition to Battelle Memorial Institute in February 1974 to share in the responsibility of these studies. The Battelle team is assembled in McLean, Va.

The prime contract has been directed to carry out its mission under four tasks. Task I involves large animal (dog and monkey) protocol toxicity studies which are initiated through a limited number of subcontracts to ensure timely performance of the studies and delivery of the protocol report for submission to FDA as part of an INDA. Task I studies are currently under way or have been completed on six agents in the initial year of the prime contract. Our estimate is that the capacity of the contract this coming year will be 10 agents with an increase of up to 15 at the end of the year. The completion of a

protocol study ideally requires eight months.

Task II also involves large animals but in abbreviated toxicity studies on agents for which there may be some existing data generated from foreign or other sources and which may be incomplete to satisfy FDA for filing an INDA. Both alkylating agents shown in task II were submitted to the program as part of the U.S.-Soviet Union agreement to exchange drugs of interest to clinical cancer chemotherapy.

Task III is concerned with organ-specific toxicity studies, for example, the use of animal models for predicting the cardiac, renal, or pulmonary toxic potential of antitumor agents. Task IV involves the computerization of protocol toxicity data which will enable the division to improve pre-clinical toxicity research, shorten lead times for protocol starts and improve responsiveness to FDA, and inquiries from other biomedical sources. The sum of $2.2 million has been allotted to the prime contractor for carrying out these tasks and conducting special toxicological studies. This amount is not expected to increase significantly during the next fiscal year.

The remaining toxicology resource contracts funded at less than $125,000 are with Colorado State Univ. for the study of the cardiotoxic effects of adriamycin, daunorubicin and derivatives using the rabbit model and with Dow Chemical Co. for studies on the effects of antitumor drugs on animal reproduction, information needed to support requests for new drug applications from FDA and requests from physicians using NCI-sponsored drugs. The total funding for resource contracts in toxicology is $2.36 million annually.

There are two projects being funded at $300,000 as program directed research contracts in toxicology. The contract at Southern Research Institute is concerned with the appraisal of toxic reactions of the mouse and the rhesus monkey to various two-drug combinations when the components are given simultaniously or in different sequences in single or multiple courses. The contract which is getting under way at the Univ. of Utah is a combined modality toxicologic study to determine the influence of sequencing and dose levels of adriamycin and x-ray given in combinations on the cardiac toxic potential of each modality in the rabbit model. The total contract budget for toxicology studies (resource and program directed research) amounts to $2.66 million annually and is not expected to increase substantially during the next year, although more protocol studies are expected to be completed.

The contracts classified under pharmacology are primarily concerned with the development of analytical-biochemical methodology and the study of the pharmacological disposition of antitumor agents and their metabolites in man, in experimental animals, and in vitro predictive systems. Richard Adamson, chief of the laboratory of chemical pharmacology, and I have primary responsibility for the conduct of this program whose total contract funding amounts to $2.6 million annually. About 25-30 agents are studied under contract annually at various preclinical and clinical stages. This is exclusive of our intramural pharmacology program in which about 5-10 agents are under study at a given time. Not included in the listing here are pharmacology studies during phase I clinical trials which are sponsored by the Cancer Therapy Evaluation Branch of the division.

Specifically, our pharmacology contracts are concerned with 1) the development and use of analytical techniques for the measurement of antitumor drugs and their metabolites in physiological fluids and tissues, 2) the development and use of mathematical pharmacokinetic models for predicting drug distribution in normal and tumor tissue from animal species to man, 3) the elucidation of the mechanism of action of antitumor drugs, and, to a limited extent, 4) the conduct of basic research on general principles of pharmacology. The long-term objective is to permit the design of more effective therapeutic doses, schedules, and drug combinations and other treatment modalities for the clinic.

The basis for assigning a drug to a contractor for study, after it has been given a priority in the decision network IIB phase of the division's linear array for drug development, depends on the contractor's particular experience with a certain class of drugs, the contractor's preference and interest, and the nature of his ongoing program. In some instances, various aspects of the pharmacology of antitumor agents can be studied in an effective manner by implementing concurrent investigations by several contractors having expertise in particular areas of pharmacology: for example, combining the mouse pharmacologist with the biochemist and the clinical pharmacologist (studies of 5-azacytidine and cyclocytidine are examples).

Another major area of our contract supported research activities is concerned with a program for the development and evaluation of test materials as potential biologic markers to assess the tumor status, regression or progression for a patient with cancer. Frequently, the current clinical procedures for determining response or lack of response of a malignancy to therapeutic efforts are completely inadequate to appriase even major changes as they occur. Biochemical or biological materials, products of tumor cells, and present in the body fluids of patients with cancer, measured by appropriate analytical techniques, could provide a sensitive means for evaluating antitumor response. The levels of such materials in body fluids, reflecting total tumor cell burden, should permit the development of rapid and practical methods for determining tumor status at appropriate intervals during treatment regimens.

Under the program direction of T. Philip Waalkes, we presently have five contracts concerned with biologic markers development whose annual funding

amounts to approximately $800,000. The contracts with Oak Ridge Atomic Energy Commission and the Univ. of Missouri primarily deal with utilization of specific analytical techniques and instrumentation for assessing such potential markers on tRNA nucleosides, polyamines, *B*-amino isobutyric acid, serum fucose/protein ratios in serums and urines of cancer patients samples obtained from Mayo Clinic, NCI, Washington VA Hospital and Eliot Fischel Hospital at the Univ. of Missouri. Immunological markers such as CEA (carcinoembryonic antigen), hCG (human chorionic gonadotropin) myeloma protein, *a*-fetoprotein as well as sialic acid (glycoproteins) and Regan's isoenzyme are also being studies as potential markers in our contracts with Hazleton Laboratories Inc. and at the Univ. of Arizona. We currently are obtaining data primarily in patients with breast, colon, lung, and ovarian cancer and in Burkitt's patients as well as other solid tumors.

Our plan for the coming year is to extend this program considerably and negotiations are on-going at the Frederick Cancer Research Center to establish a biological marker analytical and research facility sometime within the next few months. This facility would include analysis of patients' samples from selected clinical trials for potential biologic markers currently under study and include in-depth research resource in an effort to develop new, better, and more specific markers. Studies will be carried out to compare marker levels in body fluids to the current methods for assessing tumor status.

Initially, we plan to coordinate the acquisition of patients' samples with our on-going phase II study contracts in the Cancer Therapy Evaluation Branch and eventually with several of the major cancer centers in the United States as well as the NCI intramural clinical program. Research will include studies of all types of materials present in body fluids. A body fluid sample and data computer bank, to include patient and analytical results, will also be established in order to determine, rapidly, the value of a new marker and to compare it with previously studied markers. Initially the operation at Frederick should be able to carry out routine analyses on as many as 200 specimens per month and should increase to 1,000 specimens per month during the second year of operation.

The major thrust of the molecular biology program, under the leadership of Robert C. Gallo, chief of the laboratory of tumor cell biology, is directed towards gaining a better understanding of the processes involved in the molecular control of cellular growth and differentiation, neoplastic transformation, and the pathogenesis of neoplasia with the ultimate goal of developing new and improved approaches for therapy of human malignancies. The search for and the development of biologic markers are also intimately related to this program. The contract-supported activities in the molecular biology area, which are funded at a level of approximately $2.8 million annually, are both in the resource and the program directed research categories.

The largest program directed research contract is with Litton Bionetics and is funded at a level of about $1.7 million annually. The contract provides our molecular biology program with support services for 1) development of various inhibitors of DNA replication and antiviral agents, 2) the preparation of antisera against purified antigens, 3) performance of nucleic acid hybridization studies, 4) the carrying out of sequencing studies with P^{32} labeled RNA, 5) the development of diagnostic probes (nucleic acid and protein components from human leukemia cells) for human leukemia, 6) the characterization of protein factors which induce the growth and differentiation of human leukemia cells, and 7) the determination of the biological role of human leukemia virus in animal systems.

In addition, the contract supports the maintenance of an animal colony, primarily rodents and chickens, for carrying out research activities on the contract and intramurally. The remainder of the program directed research contracts offer multiple support including, 1) the development of potential biologic markers at the Univ. of Colorado, particularly the assessment of *B*-amino-isobutyric acid, a thymine catabolite whose excretion is elevated in pateints with cancer of the bladder and for studies on inhibitors of tRNA methylases, 2) the study at Roswell Park of the inhibition of oncologic virus growth in rodents using various fractions of Streptovaricin, an inhibitor of viral replication, and 3) the radioactive iodination of RNA of high specific activity at Sloan-Kettering Institute for studies on the detection of genetic sequences in DNA isolated from leukemic cells for use as molecular probes for detecting viral genetic sequences by nucleic acid hybridization studies.

The resource contracts primarily supply human normal and lymphoid cells and established human tissue culture lines, fresh human normal and leukemic leukocytes and cell lines from whole human embryos grown in culture, the supply of Gibbon Ape, Woolly monkey and Baboon viruses, the purification of viral antigens for development of radioimmunoassays, and the development of immunological assays for virus-related antigens in human leukemic cells as probes for viral antigens in neoplastic or transformed cells.

It should be emphasized that the materials supplied by contracts to this program within the division, i.e., animal and human blood products, rodent and primate viruses and viral antigens, biochemicals, labeled or unlabeled macromolecules, have also been made available to qualified investigators in other program areas within NCI and NIH as well as to investigators at many universities and institutions throughout the United States and in foreign countries.

RAUSCHER LEVELS WITH CONGRESS: NCI MUST HAVE MORE THAN PRESIDENT ASKED

NCI Director Frank Rauscher has completed his annual appearances before the House and Senate HEW Appropriations Subcommittees in which he is required to go through the farce of defending the Administration's irresponsible and inadequate budget request for the cancer program for the 1976 fiscal year.

Rauscher's formal statement avoided the issue, concentrating on various items of progress chalked up during the year since his last appearances before the subcommittees. But he did not hesitate when asked what effect the budget cuts would have on the program:

"It would slow down our momentum . . . A cut of that magnitude would be quite serious," Rauscher told Daniel Flood (D-Pa.), chairman of the House subcommittee.

In answer to Flood's questions, Rauscher said NCI would need an additional $24 million just to honor the moral commitments in funding non-competing renewals; and that, if NCI received the same amount, $691 million, that it is getting this year, it could fund 542 new grants.

NCI's original request to the White House for FY 1976 was $898 million; the President chopped that to $605 million.

Rauscher later explained to the President's Cancer Panel that in order to pay all non-competing commitments and to fund new grants and competing renewals at the same level (60%) as this year, NCI would need $775 million.

The tone of Flood's remarks indicated that the least his bill will have for NCI will be $691 million, and probably considerably more than that.

Highlights of Rauscher's statement:

Research and control accomplishments of the past year should have an impact on the long-term survival statistics for the three cancers that are responsible for almost 45% of cancer deaths—lung, breast and colon.

In breast cancer, the first results from the nationwide breast cancer detection demonstration we are sponsoring jointly with the American Cancer Society have shown a 28% increase in women diagnosed with cancer of the breast but no cancer spread to the lymph nodes. The improved diagnoses are due to the use of mammography and Xeroradiography to detect breast cancer in symptom-free women. Thus, this program, which is screening annually 270,000 women in 27 projects, is detecting breast cancer at earlier stages than is usual.

Encouraging results were obtained in treatment aimed at preventing recurrence of breast cancer by early introduction of drug therapy after initial surgery. A study utilizing postoperative treatment with L-PAM, in patients with positive lymph nodes, has shown a significant decrease in recurrences up to two years after surgery for removal of the cancer. Since a number of drugs have varying effects in advanced breast cancer, various combinations were tested to improve the results obtained with L-PAM. Preliminary evidence suggests that a three-drug combination is even more effective than L-PAM in patients with advanced cancer.

For lung cancer, progress was noted in a large clinical study using cell examination of sputum and chest x-ray to detect lung cancer in symptom-free heavy smokers. In the small group of lung cancers found to date, about half were too small to be detected by x-ray alone. The cancers appeared to be in early stages, so that five-year survival of these patients could be higher than the 5% expected for patients with symptoms.

In one type of lung cancer, small cell carcinoma, a response rate of 50% and some prolongation of survival has been observed with a three-drug combination. This type of cancer constitutes only 10% of lung cancer cases in the United States. We have so far had little success in treating the more common types of lung cancer.

Use of an improved flexible fiberoptic colonoscope has greatly improved the capability for locating cancer in the large bowel. It may assist the detection of cancer of the colon in earlier, more curable stages.

The first drug combination that has shown some promise of effectiveness in the treatment of advanced colon cancer has emerged. If this therapy, which is a combination of three drugs given postoperatively, is successful, it could make a significant impact on the colon cancer death rate.

A dramatic improvement was observed in survival of patients with osteogenic sarcoma, a tumor of bone in young people. The two-year survival rate was increased from 20 to 80% with the use of a combination of surgery and drug therapy.

Efforts to markedly reduce uterine cervical cancer nationwide continued with a cancer control program of 29 projects established in cooperation with state and territorial health departments. Pap tests are provided to high-risk women who have never, or have seldom, been screened for cervical cancer. Several more projects will be in operation by the end of June, at which time an estimated 500,000 women will have been screened in this program.

Research is also in progress to improve the Pap test because the number of technicians and laboratories presently available is inadequate to conduct the volume of testing required with the existing technique. Efforts are under way to evaluate machines developed for the automated analysis of specimens. The instruments are designed to scan specimens rapidly and select those with abnormal cells for subsequent analysis by trained personnel.

A major research advance in the area of cancer and viruses was isolation by NCI scientists of a virus from

leukemic cells of a patient with acute myelogenous leukemia. The virus is immunologically and biochemically similar to the two viruses that cause cancer in non-human primates, the gibbon ape and woolly monkey.

The isolation of the virus is scientifically important because it permits us to take the necessary further steps to identify the one or more factors that cause acute myelogenous leukemia. It also may enable us to develop new approaches to detecting the disease, monitoring the effectiveness of drug treatment, or destroying residual leukemic cells in leukemic patients after drug treatment.

Immunology research is a heavily emphasized area in cancer investigations. It provides a scientific basis for immunodiagnosis and immunotherapy of cancer, and for monitoring the effectiveness of cancer therapy. In immunotherapy, for example, we attempt to stimulate the body defense mechanisms to destroy cancer cells. In a few short years, knowledge of the basic mechanism of the immune response has increased enormously. Immune responses to antigens on the surface of tumor cells have been demonstrated in animal systems, and there is suggestive evidence that humans respond to antigens specific to their tumors.

As part of the program to develop blood tests for cancer, more than 25 potential immunodiagnostic tests were studied last year with the aid of a bank of stored blood serum specimens. One of the tests used a new purified fraction of carcinoembryonic antigen (CEA), which is a "marker" protein that is increased in the blood of patients with some types of cancer. The test using the purified fraction of CEA was positive in 50% of patients with gastrointestinal cancer. This high level of discrimination is an important advance in improving the test for CEA.

Our cancer control activities, which are now reaching all corners of the United States, are conducted through demonstrations, communication, and education. Most states have cancer control projects within their borders. A newly initiated program demonstrates the use of cancer control in a concerted manner in selected communities. We are working with a number of communities, each of which will mobilize resources of people, facilities, and funds to bring into full use a spectrum of cancer control techniques in prevention, detection, diagnosis, treatment, rehabilitation, and continuing care. We shall have a system for mobilizing all the competences and resources of a community to focus on reducing the cancer problem.

In cooperation with the comprehensive cancer centers, we funded nine projects to undertake planning and development of programs to extend cancer control efforts to community hospitals, practicing physicians and the general public. In fact, with the stimulus of the new national emphasis on increased awareness of cancer among people, all the comprehensive cancer centers are embarking on such activities. For example: in upstate New York, a traveling oncology team discusses recent advances in cancer medicine and reviews cancer cases; in the Miami area, a series of some 60 free cancer lectures is made available to local hospitals or health agencies; and in Rochester, Minn., a newspaper publishes a weekly column, "Cancer Answers."

Activities planned for 1976 include continued interest in identifying individuals at high risk to cancer. We are also funding program activities in education in cancer nursing, training of physical and occupational therapists, rehabilitation research, and psychosocial rehabilitation. Some of the projects demonstrate patient rehabilitation service systems that provide medical, psychosocial, and social support to cancer patients.

We have moved ahead with the recognition of five additional comprehensive cancer centers, bringing to 17 the number currently recognized. These centers are forming a nationwide network of geographically balanced institutions whose purposes are to serve as a national resource for basic research, clinical research, and multidisciplinary patient treatment, in addition to community outreach and communication efforts. Before the end of this year, two, and perhaps three, more centers will be identified.

We are also working with the Assn. of American Cancer Institutes to develop common language and practices among the member institutions regarding their patient data. This association is becoming a principal organization for coordination among the major cancer hospitals and research institutions in the country. We believe that a new group, the Assn. of Community Cancer Centers, will help the participation of local personnel in combating cancer. This group has expressed an intention to collaborate with each other and with us in building community cancer programs and assuring that new practices in clinical cancer medicine reach the local level quickly.

The basis for heavy emphasis in environmental carcinogenesis is the premise that in cancer, as in other diseases, prevention offers the best hope for ultimate control. Since a majority of cancers are believed to be environmentally caused, effective prevention might be accomplished by avoiding exposure to causative agents or by protecting against their actions. In addition to our NCI program of testing about 450 potentially cancer-causing agents and working to develop a battery of short-term and less expensive test methods, we established an Interagency Collaborative Group on environmental carcinogenesis, with a membership of 18 federal agencies. In the last 18 months, the group has provided a forum for discussion of 25 topics of mutal concern relating to environmental cancer.

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 NCI-CB-53919-35

Title: *Request for statement of capabilities for periodic screening of relatives of patients with medullary carcinoma of the thyroid using calcitonin radioimmunoassay*

Deadline: *June 9*

NCI is seeking institutions that have a cohort of patients with medullary carcinoma of the thyroid (MCT) proven histopathologically. Such organizations will be interested in screening family members by determination of serum calcitonin. They will have the capability to measure this substance by radioimmunoassay.

The emphasis in the proposed study will be on early diagnosis and whether this diagnosis procedure will lead to an increased survival in the patients. The size of the cohort should be sufficiently large to offer an adequate number of family members to demonstrate these points.

Resumes of experience and capabilities should cover:

1. Experience—an outline of previous projects, specific work previously performed or being performed, and any inhouse research and development effort.

2. The names, professional qualifications and specific experience of scientists and technical personnel available for the project.

3. Facilities—availability and description of special facilities required to perform in the area under consideration.

4. Published or unpublished data relative to their work, with indication of degree of experience with radioimmunoassay for calcitonin.

5. Access to patient study material including size of population available and number of cases expected per year.

6. A statement as to how, with the particular study population, it might be possible to have a control group.

7. Any other specific and pertinent information as pertains to this particular area or procurement that would enhance our consideration and evaluation of the information submitted.

Also, if the organization qualifies as a small business concern, include the criteria used for such qualification.

Ten copies of the resume of experience and capabilities must be submitted to:

Contracting Officer: Harold P. Simpson
Biology & Diagnosis
301-496-5565

RFP NCI-CM-63832

Title: *Cell culture screening of new agents for potential use in cancer chemotherapy*

Deadline: *Early June*

The NCI Drug Research & Development Branch 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 for cytotoxicity. Assignments will encompass the propagation and maintenance of stock cell lines; preparation of test materials; recording, computation, and evaluation of results; and summarization and reporting of results as specified. Testing is performed according to DR&D 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 tube assay screening of drugs for cytotoxicity similar to that described by Eagle & Foley. Materials to be tested will include drugs or chemicals of varied physicochemical properties, and 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 minimum level of 5,000 tests per year. A test, as used here, means a single material tested at three to five dose levels, each in duplicate, with appropriate controls. Proposals will be invited for a three-year incrementally funded contract period at levels of 5,000 or 10,000 or 15,000 tests per year.

Respondents will be required to demonstrate capability to perform at the chosen level. Requests for RFP must cite the number of this project as shown above. The number of requests for proposal is limited and distribution will be made on a first come, first serve basis until the supply is exhausted. Then a copy will be on file for perusal in the office of the Contracting Officer. The deadline date for submission of proposals is contained in each Request for Proposal.

Contracting Specialist: Daniel M. Abbott
Cancer Treatment
301-427-7463

Contract Awards

A.D. LITTLE GETS $2.4 MILLION PHARMACOLOGY, TUMOR BANK AWARD

A complicated consolidation of existing contracts due for recompetition with some that still had several years remaining has resulted in a $2.4 million, two-year award by NCI's Div. of Cancer Treatment to Arthur D. Little Inc. for pharmacology studies and operation of a tumor bank.

ADL was successful last fall in winning a pharmacology contract that had been held by Microbiological Associates, in competition that also included Mason Research Institute. That award was for five years, but much of the work overlapped work ADL had been doing under a contract scheduled for recompetition this year.

NCI decided to consolidate the pharmacology studies into one contract, and rather than recompete the five-year award after only a few months, reduced it to a two-year award. It will be recompeted in 1976.

ADL was already operating the tumor bank under a contract scheduled for recompetition in 1976. NCI combined it with the pharmacology award for administrative purposes, but will split it off next year, with separate contracts available for competition.

John Mead of DCT's Experimental Therapeutics Area is project officer.

Other contract awards:

Title: Planning for a state-wide cervical cancer screening program
Contractor: Vermont Dept. of Health, $39,603.

Title: Synthesis of derivatives of 3-Formylrifamycin-SV
Contractor: Dow Chemical Co., $148,915.

Title: Resynthesis of bulk chemicals and drugs and the extraction and isolation of natural products
Contractor: Aerojet-General Corp., Sacramento, $35,107.

Title: Support services for Eastern Cooperative Oncology Group
Contractor: Georgetown Univ., $187,267.

Title: Operation of the drug research and development chemical information system
Contractor: Chemical Abstracts Service, $80,333.

Title: Synthesis of nitrogen heterocyclic compounds as potential antitumor agents
Contractor: Univ. of Colorado, $72,905.

Title: Expansion of cervical cancer screening programs
Contractors: Maryland Dept. of Health, $206,291, and Arkansas Dept. of Health, $175,149.

Title: Breast Cancer Detection Demonstration Project
Contractor: Georgetown Univ., $183,188.

Title: Comprehensive cancer center communications network
Contractor: New York Dept. of Health and Health Research Inc., $263,948.

Title: Data processing support for the program of cancer surveillance, epidemiology and end results reporting (SEER)
Contractor: Geomet Inc., Gaithersburg, Md., $125,082.

Title: Housing and maintenance of a chimpanzee breeding colony
Contractor: Southwest Foundation, $45,370.

Title: Biomedical computing software services in support of the clinical and diagnostic trials program
Contractor: EG&G/Mason Research Institute, $93,058.

Title: Tumor registry training program
Contractor: Univ. of California (San Francisco), $85,791.

Title: Feasibility study to define the modalities for state of the art survey in diet, nutrition and cancer
Contractor: Franklin Institute, $44,038.

SOLE SOURCE NEGOTIATIONS

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

Title: Development of propagation procedures, purification and characterization of viruses
Contractor: Electro-Nucleonics Laboratories Inc.

Title: Study of human milk and mammary tumors
Contractor: Institute for Medical Research, Camden, N.J.

Title: Natural occurrence of RNA tumor viruses (genomes)
Contractor: The Jackson Laboratory, Bar Harbor, Me.

Title: Research on the antitumor resistance of extract (MER) of tubercle baccilli (BCG)
Contractor: The Hebrew Univ.

Title: Synthesis of polycyclic hydrocarbon derivatives
Contractor: Midwest Research Institute.

The Cancer Newsletter—*Editor* JERRY D. BOYD

Published fifty times a year by The Cancer Letter, Inc., 1411 Aldenham Ln., Reston, Va. 22090.