P. 5 - FILE; LEGISLATION

THE CANCER LETTER
RESEARCH EDUCATION CONTROL

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SENATE KILLS CONSTRUCTION REPROGRAMMING PLAN; NCI TO SEEK LIMIT ON FUTURE GRANT APPLICATIONS

Sens. Warren Magnuson and Edward Brooke, chairman and ranking minority member of the HEW Appropriations Subcommittee, last week killed NCI's request to reprogram $10 million in construction funds from the current fiscal year budget.

No formal action was taken by the subcommittee. Magnuson and Brooke merely agreed to inform NCI that they did not approve of the request to take $10 million from the $16 million construction budget

(Continued to page 2)

In Brief

INCREASED OUTPUT CAN HOLD DOWN HIGH LET COST, KLIGERMAN SAYS; NO MORE GROUPS ON THE BLOCK

INCREASED COST of high LET radiation therapy can be offset to a large degree by more efficient methods, Morton Kligerman of the Univ. of New Mexico, told the Cancer Clinical Investigation Review Committee. He has developed a system in which patients are set up outside the radiotherapy room and can treat 10 per hour. The average by setting them up inside is four per hour. With more rapid output, increased cost of high LET radiotherapy involving more expensive machines can be held to about 25% more than with present x-ray systems, Kligerman said. . . . **ITEMS HEARD** between sessions of the CCIRC, about the Cooperative Groups: The Cooperative Breast Cancer Group, now being phased out, probably will be the last group dropped for quite some time, making three to be eliminated in the last two years (Central Oncology Group and Western Cancer Study Group were the others). The others are strong and getting stronger. The Southwest Oncology Group now under review "is a masterpiece of multidisciplinary organization," according to one observer. The Children's Cancer Study Group, which has been conducting multidisciplinary studies for several years, was recommended for approval with a high overall priority. . . . **TWO SCIENTISTS** have been recognized by M.D. Anderson for outstanding achievement and contributions to cancer research. Beatrice Mintz, of the Institute for Cancer Research in Philadelphia, received the 26th annual Bertner Memorial Award; Bosco Wang, Harvard, received the sixth annual Wilson S. Stone Award. . . . **YALE COMPREHENSIVE** Cancer Center is sponsoring a symposium June 1 on the multidisciplinary approach to etiology, diagnosis and treatment of non-Hodgkins lymphomas. Contact Alan Lebowitz or Marion Morra, 25 Park St., New Haven, Conn. 06510. . . . **PRESIDENT CARTER**, in proclaiming April as Cancer Control Month, said that the country's efforts to overcome cancer "have been rewarded. Every year we learn more about the causes of cancer, and about its prevention, diagnosis, treatment and control. Our progress is largely due to the dedication of scientists and physicians throughout our nation."

IMPLEMENTATION OF 50-50 CONSTRUCTION COST FORMULA PUT BACK TO OCTOBER 1

(Continued from page 1)

and distribute it among other programs. The appropriations subcommittees of both houses would have had to agree to the change.

NCI had planned to put $3.5 million more into investigator-initiated research grants, $2 million to clinical trials, $1 million to nutrition, $2 million to center core and exploratory grants, $1 million to the Carcinogenesis Program and $500,000 for the task forces.

The denial immediately makes the money available to construction projects that have been approved but otherwise would not have been funded this year. Two grants that were approved but unfunded last year—Georgetown Univ., for $4.9 million, and Stanford Univ., for $8.3 million—logically would be first in line when the $10 million is distributed. However, ***The Cancer Letter*** has learned that those two grants will be reconsidered along with other applications being reviewed this year, by the National Cancer Advisory Board's Subcommittee on Centers & Construction. The subcommittee will be asked to re-establish the priorities in recommendations to the Board.

Georgetown probably will be rated high enough to be funded, at least in part. Stanford, largely because of the size of the grant, may be re-evaluated downward, to permit a broader distribution of the money.

In fact, NCI plans to recommend to the subcommittee that future construction grant applications be limited in their fund requests to $3-4 million. "We just can't do business anymore with those asking $8-10 million all at once," an NCI staff member said.

The Board already has approved reducing NCI's share of construction funding to 50% of each project's approved cost. NCI has been paying up to 75% of such costs. The new formula was to have gone into effect with grants submitted after June 1, but NCI has extended that deadline to Oct. 1. Applications received by then will be eligible for funding at 75%.

The President's budget request for NCI in FY 1978 included $12.9 million for construction. This probably will be increased by Congress to at least the same level as this year.

PANEL TO HEAR CENTERS' PROBLEMS AGAIN; ALABAMA, MAYO IMPRESS SITE VISITORS

The President's Cancer Panel will consider again the problems of cancer centers at its meeting March 22 (9:30 a.m., NIH Bldg 31 Room 7). At its last meeting the Panel debated the merits of the National Cancer Advisory Board's requirements for comprehensive cancer centers (***The Cancer Letter***, Feb. 18). Several center directors were invited to participate in that meeting, and some also will be there this time.

NCI staff, representatives of the Board and consultants have completed the first two reviews of existing comprehensive centers to determine how well they are living up to the Board's requirements, or "characteristics" as they are called. Mayo and the Univ. of Alabama were visited by the staff and Board team in late February and early March.

The report of the teams will be submitted to the NCAB Subcommittee on Centers & Construction at its May meeting and then to the full Board. Although the report will not be made public before it goes to the Board, ***The Cancer Letter*** has learned that the reviewers were impressed by accomplishments and progress at both Mayo and Alabama. Certainly neither is in danger of losing its comprehensive designation.

Memorial Sloan-Kettering is the next comprehensive center scheduled for review, March 30-31. The Univ. of Southern California/Los Angeles County center was to have followed April 14-15. However, director Denman Hammond asked that the review be delayed, since he and his staff are busy now revamping the center's construction program and drawing up a new grant application. NCI agreed to the request, and no new date has been set.

NCI LISTS PROGRAM PROJECT GUIDELINES; "ONLY THE VERY BEST WILL BE FUNDED"

NCI's program project grant mechanism with its $80 million budget attracts the attention of many investigators who are finding it increasingly difficult to find the money to carry on their research. But unless they can meet the strict new guidelines for program projects recently announced by NCI's Div. of Cancer Research Resources & Centers and can claim the very best science in their projects, they should try something else.

"We stress that program project grants must have an integrated theme," said Mary Fink, who as associate director of DCRRC for research programs is responsible for program projects. "The parts together must be bigger than the sum of the individual parts. If it does not have this concept, the applicant would be better off applying for an RO1 (traditional research grant). Only the very best will be funded. We're not urging people to apply unless their project really fits the criteria."

At present, there are 62 program projects supported in basic science, with $40.3 million, and 56 in clinical research, with $40.35 million. The budget for fiscal 1978 calls for virtually the same amount, $81.5 million, unless Congress adds substantially to the amount in the President's budget request for NCI.

Two grants that Fink believes are among the best of program projects are those to James Watson at Cold Spring Harbor and Norton Nelson at New York Univ. Watson receives a little more than $1 million a year for basic research in molecular and cellular biology to study ways in which viruses change normal cells into cancer cells. Nelson gets $268,000 a year for a series of studies aimed at cancer prevention.

Here's how Watson described his program in apply-

ing for renewal of his grant:

"Over the next five years, our program envisages the close working together of several major research divisions (1) Tumor Virus Section, (2) Cell Culture and Virus Preparation Section, (3) Protein Synthesis Section, (4) Mammalian Cell Genetics Section, (5) Cell Biology Section, (6) Electron Microscopy Section, (7) Nucleic Acid Chemistry Section, (8) Protein Chemistry Section, (9) Molecular Genetics Section, (10) Central Research Services Section, (11) Meetings and Immunogenetics Workshop Section.

"The major focus of research at the Cold Spring Harbor Laboratory is the nature of the cancer cell and how it can arise from a normal cell following the introduction of the genome of a tumor virus. We are interested both in the biology and chemistry of the normal cells and their cancerous equivalents and in the molecular biology of those viruses which possess the ability to transform normal cells into cancer cells."

Watson described briefly the background of virus studies at his lab, in which grants from NCI and the NIH Institute of General Medical Sciences permitted development of facilities for study of tumor viruses.

"By 1971, sufficient research progress had occurred to encourage us to make detailed plans for extensive renovation of the Demerec laboratory to provide new labs for the study of mammalian cell genetics, as well as modern facilities for research in nucleic acid and protein chemistry. To cover the cost of much of the renovation, as well as to provide the much greater sums involved in recruting additional scientific staff and their subsequent research expenses, we submitted an application in 1971 to NCI for a five-year grant. It promised a broad approach to the problems of how tumor viruses bring about the cancerous transformation with the hope that we might be able to diagnose the unique qualities of cancer cells which enable them to circumvent the normal controls over unwanted cell division and growth.

"Happily the acceptance of our proposals in almost their original form has enabled us to initiate a large number of collaborative research efforts that have already yielded many unexpected new experimental facts as well as research tools that have greatly quickened the pace of tumor virus research. Here we submit a renewal application which requests a continuation of our NCI grant for an additional five years. An essential aspect of this application is the proposed close collaboration between all the groups of our scientific staff.

"Unlike many research institutions where different research groups work on quite specific research problems, the large majority of scientists at Cold Spring Harbor focus on a common problem, how SV40 and the adenovirus groups of viruses bring about cell transformation. Over 75% of the some 40 scientists who work here at a given time exclusively center their activities on SV40 and the adenoviruses. So they are constantly providing each other research material as well as exchanging ideas and equipment. Not surprisingly, most of the resulting publications from Cold Spring Harbor have been of multiple authorship.

"While we realize that over-concentration on one research area can be dangerous, we believe that a coordinated approach to the SV40-adenovirus problem offers great dividends that individual efforts in many different labs cannot easily bring about. Even with the great recent experimental advances in cell culture techniques, electron microscopy, and nucleic acid chemistry, most of the experiments we propose to do over the next few years are not straightforward tasks. Many are unlikely to be tried except under conditions where, say, the nucleic acid chemist, the in-vitro protein synthesizer, the electron microscopist, the animal virologist, and the somatic cell geneticist can all work closely together. So we feel it best to present our application in the form of a large program project whose ultimate success depends upon the imaginative collaboration of the vast majority of our scientific staff."

The application described the lab's organization:

"Currently we group ourselves into eight sections, each of which is headed by a member of our scientific staff. They are Tumor Virology (Joe Sambrook), Protein Synthesis (Ray Gesteland), Molecular Genetics (David Zipser), Nucleic Acid Chemistry (Richard Roberts), Electron Microscopy (Tom Broker), Cell Biology (J.D. Watson), Protein Chemistry (Tom Maniatis), and Mammalian Cell Genetics (Jim McDougall). Each lab chief in theory has a separate budget. But because so many experiments are inter-group efforts, the respective budgets for research support are of necessity blurred."

Nelson described his project:

"This proposal seeks continuation of support for a grant for a series of studies aimed at cancer prevention. The underlying philosophy is that where the causes (or enhancing factors) of cancer can be identified, means for control can be sought. In a similar way, identification of the underlying mechanisms involved in the conversion of a normal to a malignant cell may permit the development of means for interrupting that conversion, thereby preventing the development of malignancy. The program deals with chemical, physical and biological factors in the causation of cancer as well as their interaction.

"The approaches described cover a wide range and include biochemical studies of intracellular mechanisms including cell kinetics, the development of laboratory models for cancer in various organ systems, the development of mathematical models for cancer induction, and epidemiological studies on human populations aimed at the identification of causal factors.

"Clearly, cancer prevention is a most desirable means for the control of cancer. It is believed that there are solid leads which promise practical results in

the attainment of means for the prevention or reduction of some forms of cancer.

"The grant would be used primarily for the core support (senior staff, key equipment and central services). The major supporting funds would be sought through the usual grant and contract sources."

Applications are reviewed by one of two NCI chartered committees. Basic science applications go to the Cancer Special Program Advisory Committee, chaired by H. George Mandel, chairman of the Dept. of Pharmacology at George Washington Univ. School of Medicine. Clinical research applications are reviewed by the Clinical Cancer Program Project Review Committee, chaired by Jesse Steinfeld, dean of the School of Medicine at the Medical College of Virginia.

NCI sometimes encourages prospective grantees to submit applications in certain research areas, sometimes because of certain needs, sometimes because of interests expressed by the National Cancer Advisory Board and by Congress. In the last couple of years, program projects in environmental carcinogenesis and epidemiology may have enjoyed an edge over others.

Fink insisted that is not the case now. "I would rather say that the quality of the science is the most important thing," she said.

Investigators at smaller institutions are not at a disadvantage in competing for program project grants with those from the larger centers, Fink said. "They are feasible wherever the scientists are, provided they have compatible people, people who work well together. That is very important."

The new guidelines define and explain program projects:

"The program project grant is a mechanism for the support of a broadly based multidisciplinary cancer research program having a specific major objective or basic theme. A program project generally involves the organized efforts of a number of investigators each of whom conducts a research project designed to elucidate one or more aspects of the common program goal.

"The program project grant was introduced to encourage a multidisciplinary or multifaceted approach to complex biomedical problems. It offers an economy of effort and investment in people, space, and costly items of equipment in a given research locality.

"This grant mechanism supports a research program of interrelated projects with a central theme. Such a research effort is facilitated by the interactions of participating investigators who share equipment, facilities, and data. Each project within the program should contribute to or be related to a common theme of the total research effort. The investigators may work collaboratively, applying their specialized research capabilities to either basic or clinical research programs or to a combination of basic and clinical components.

"In addition to the individual research projects, a component may be included to support facilities and resources—animal care, culture media, etc.—shared solely by investigators on the grant. This is usually referred to as a 'core component' of the program project. In contrast, Cancer Center Support (Core) Grants support facilities and shared resources for various projects and administration of cancer centers but do not support research components. If a Cancer Center Support (Core) Grant (CCSG) exists, it is advisable to coordinate the program project request with the principal investigator of the CCSG before completing the application.

"The individual named as principal investigator of the program project is expected to accept responsibility for the administration and integration of the whole program. The component projects should involve experienced scientists whose backgrounds and interests relate meaningfully to one another so that new leads or new scientific information will be pursued and applied effectively by the group.

"It is to the applicant's advantage to contact NCI staff as early in the planning stage as possible. The initial contact should be a concise letter of intent, submitted at least six months before submission of a new or competing extension program project application.

"The letter should summarize the plans for the program and should include a brief outline of the proposed application according to the format presented later. It should also include tentative budget estimates for each program component.

Criteria for a Program Project Grant

"1. There must be a central theme to which each project relates and contributes.

"2. Each component project must stand on its independent merit, as well as complement or contribute to the other projects.

"3. All investigators must contribute to, share in, and relate to the common program theme.

"4. A mechanism for the interrelation and communication of the ideas and results of all participants must be demonstrated.

Factors Considered in Review

"Review factors listed below, not necessarily in order of importance, are used in the evaluation of program project applications:

- "The significance of the overall program goals and the importance of the research to the National Cancer Program.
- "The scientific merit of each individual project and its relationship to the central theme of the overall program.
- "The quality and justification for any core component included in the application.
- "Accomplishments of the program to date (particularly for competing extension and supplemental applications).
- "The leadership ability and the commitment of the principal investigator.

• "The qualifications, experience, and commitment of the investigators responsible for the individual research projects.

• "The coordination and interrelationship of all individual research projects and core components to the common theme of the overall program.

• "The institutional environment in which the research will be conducted, including the availability of space, equipment, patients, and the potential for interaction with scientists from other areas.

• "The arrangements for: (a) internal quality control of ongoing research, (b) allocation of funds, (c) day-to-day management, and (d) arrangements for internal communication and cooperation among the investigators involved in the program.

• "The institutional commitment to the requirements of the program.

• "The appropriateness of the budget in relation to the proposed program."

Copies of the guidelines booklet may be obtained from DCRRC, NCI, Bldg 31 Rm 10A03, Bethesda, Md. 20014.

In Congress

SACCHARIN BAN GETS ATTENTION OF ROGERS; DNA BILLS INTRODUCED

The decision by the Food & Drug Administration to ban saccharin because it was found to produce bladder tumors in experimental animals has stirred congressional interest. Rep. Paul Rogers, chairman of the House Health Subcommittee, has indicated he may schedule hearings on the issue. Saccharin producers and other groups may push for legislation if the FDA decision is upheld.

The action probably will develop more controversy than FDA's ban of cyclamates. The agency claims it had no choice: The 1958 Delaney amendment to the Food & Drug Act says flatly that no food additive shall be permitted if it is demonstrated to cause cancer in man or animals. FDA said studies showed that it did cause cancer in rats. The pro-saccharin forces are challenging the validity of those studies.

Bills were introduced last week to regulate research involving recombinant DNA. In the House it was HR 4849, by Rogers; in the Senate, S 945, by Howard Metzenbaum (D.-Ohio). Metzenbaum's bill would establish a national commission to study recombinant DNA research and technology, and would provide citizens and government remedies.

Other health bills included:

HR 4869, by Henry Waxman (D.-Calif.), to establish within NIH a Center for the Evaluation of Medical Practice.

HR 4573, by Edward Koch (D.-N.Y.), to protect the public from unnecessary medical exposure to ionizing radiation.

S 940, by Birch Bayh (D.-Ind.), to provide for coverage under medicare for routine exfoliative cytology tests for the diagnosis of uterine cancer.

Four bills (HR 4591-4594), by Benjamin Rosenthal (D.-N.Y.), to permit advertising of drug prices, require pharmacists to post prices of prescription drugs, to require in drug labeling and advertising use of the generic name along with the proprietary name, to require efficacy date limits on drug labels, and to require compulsory licensing of pharmacists.

CANCER DEATH RATE FOR UNDER 35 AGE GROUPS IS DROPPING, NEWELL SAYS

Acting NCI Director Guy Newell told the House HEW Appropriations Subcommittee last week that NCI has statistical evidence that for age groups under 35, cancer death rates have decreased.

"The purpose of the National Cancer Program since its establishment in late 1971 has been to reduce the burden of cancer either by preventing it or by curing it," Newell said. "Mr. Chairman, we are able to show results in terms of decreasing mortality and cost savings for cancer patients. I can show results in these terms.

"There are definite improvements in some cancer mortality rates. Different types of cancer afflict specific age groups, and for the types in age groups under 35, cancer death rates have decreased for the nation as a whole.

"In the under-15 age group, the decrease is due largely to better treatment for acute leukemia, and brain, kidney, and bone cancers. I have evidence that today a large majority of children with acute lymphocytic leukemia (ALL) has access to the very best in medical care, and this is a major advance. We collect data on a continuing basis on all new cancer cases in 10 percent of the country (covering 20 million Americans). This coverage includes all hospitals in the areas. In one year, 101 new cases of ALL in children under 15 developed. Among these children, the median time from first symptom to seeing a doctor was one month; it took one additional week to first diagnosis, and just one more day to first treatment. The survival of these children was comparable with the survival of children treated by one of the best clinical cooperative groups. Mr. Chairman, I think these exciting findings reflect our ability to transfer complicated technology to the benefit of people.

"In the 15 to 34 age group, the decreased mortality rates are due largely to successful treatment of Hodgkin's disease and other lymphomas. A key point here is that research leads first conceived in the mid-1960s are reflected in decreasing mortality for the national as a whole only 10 years later. This may seem like a long time-lag. I assure you it is not. Consider that the initial clinical trial usually takes five years. If results are favorable, they must be confirmed. Treatment regimens are usually complicated, with toxic side effects, so that application in local and community hospitals may be technically unfeasible at first, and require either modification of the regi-

men or extensive professional retraining.

"In the 35-55 ages, the death rate has remained constant. However, as you will hear during my discussion of treatment, technology learned from our successes in younger people is being transferred to the common tumors of adults, including colon-rectum, lung, breast, uterus, prostate, and urinary organs. Above age 55, death rates are increasing slightly, probably due to a combination of new cases caused by cigarette smoking, industrialization factors, and inadequate treatment.

"Technology transfer programs supported by NCI have considerable cost savings for patients. The Comprehensive Cancer Center at the Univ. of Alabama, for example, estimated that its programs saved patients $1.1 million last year. These included savings in hospitalization costs not required because recurrent breast cancer was avoided or delayed by postoperative drugs. Hospitalization and transportation costs were saved because community practitioners, including nurse practitioners, were trained to examine women for early uterine cervical cancer. Necessary biopsies were performed in local clinics by gynecologists trained by the center.

Newell's statement was grouped into comments on etiology, detection, treatment, education and basic research. Excerpts follow:

Cause and Prevention

This committee has shown strong interest in expanding the federal efforts to protect the public from cancers associated with exposures to environmental hazards, and has asked us to take certain actions. I would like to bring you up to date on our progress.

Of the 77 new staff positions (ordered by the committee last year), 17 were designated for the newly established Environmental Epidemiology Branch to expand its studies of the geographic and other variations in cancer in the United States. The remaining 60 positions were designated for the Carcinogenesis Program for laboratory studies to identify cancer-causing chemicals. We are actively recruiting personnel for these positions.

Although we have encountered problems with the Carcinogenesis Testing Program, I am pleased to report considerable progress. First, consistent with the perception of national need, I have expanded the Carcinogenesis Program by establishing two associate director positions for carcinogenesis—one devoted full-time to the testing program and the other to the research program. These activities will complement each other in our efforts to identify cancer-producing substances with existing methods, and improve on those methods so that substances can be identified more rapidly, efficiently, and at lower cost.

Second, priorities have been reordered to place more emphasis on reporting results of those chemicals already on test. Many logistical problems have been overcome or will be solved during the coming year. Appearing before this committee the last time, Dr. Rauscher reported that 203 chemicals were off test, and that about 25 of those had gone through the complete pathology and biometric analysis. Since that time, pathology and biometric analysis were completed on about another 35 chemicals. A total of 25 draft reports is expected to be completed shortly. Our activities in this area are being greatly accelerated to catch up on this backlog. At present, we have completed animal testing of more than 250 chemicals.

Third, we have established the Clearinghouse on Environmental Carcinogens whose functions include chemical selection, experimental design, data evaluation, and risk assessment.

Fourth, we have expanded our collaborative efforts: with the National Institute for Occupational Safety & Health, by an interagency agreement of $3 million in fiscal year 1977 to support 21 projects; with the Dept. of Labor, to incorporate scientific information on occupationally related cancers into educational materials for more than 100,000 workers; and with the National Institute of Environmental Health Sciences, to evaluate existing methods of in vitro testing and conduct research on new methods.

Fifth, we are surveying carcinogenic agents to identify key carcinogens that warrant particular control activity, and to provide recommended, practical control and prevention methods for them. This project has completed its first year. Experts knowledgeable in specific areas have selected candidate chemicals, identified priorities for control, and begun to develop extensive information on 96 chemicals. Epidemiological data, toxicological data, and control prospectus for 20 chemicals have been produced. Monographs are under development for asbestos, vinyl chloride, and diethylstilbestrol. The monographs will be available to the public, health practitioners, employers, and those who regulate occupational safety.

Problems still exist. One, specifically, is a national shortage of individuals with the requisite training to pursue these most important activities. These include chronic-disease epidemiologists, animal pathologists, toxicologists, and biometricians.

A continuing problem in cancer prevention is smoking. To counteract the increasing consumption of tobacco, a less hazardous cigarette was developed under the auspices of the National Cancer Program. These cigarettes are in wide use, and it is hoped they will reduce the risk of developing lung and other cancers.

In response to a congressional mandate, NCI has developed a Diet, Nutrition & Cancer Program to generate and disseminate information on diet and the causation and therapy of cancer. The nutrition program is funding research to increase appetite and food utilization in the cancer patient, to maximize nutritional support during therapy and rehabilitation. The projects reflect the great opportunities to define in a short time, perhaps one to three years, patient man-

agement methods of immediate benefit. Research for the definition of desirable dietary intake for health maintenance and disease prevention will require five to 10 years.

Detection

In detection, our efforts are directed toward methods of detecting the common cancers as early as possible, when the tumor mass is smallest and treatment is most effective. Four sites—lung, colon-rectum, breast, and uterus—together account for about half of new cancer cases and cancer deaths.

Lung Cancer: (93,000 new cases, 83,800 deaths per year) A detection project for early lung cancer, now in its fourth year, is showing promising results. A combination of sputum cytology, chest x-ray, and bronchoscopy is used to detect the exact location of early lung cancers at a time when they are amenable to surgical removal prior to metastatic spread. Cells suspected of being cancerous have been found in nearly 1% of the individuals tested per year. Many tumors were not visible on chest x-ray but were localized by bronchoscopy. Many tumors are multifocal early in their development. Information obtained in this project is adding greatly to our understanding of the disease

Colon-Rectal Cancer: (99,000 new cases, 49,200 deaths per year) We have launched a screening project to learn if the occult blood test is effective in detecting early colon cancer, which strikes Americans more frequently than any other cancer except skin cancer. Of 45,000 individuals expected in the project, 15,000 will be in a control group and an additional 30,000 people between 50 and 80 years of age will be screened. Persons with a positive test for blood will receive a complete diagnostic workup to determine the cause of the bleeding. To date, 29,000 individuals have been entered into the project, and 24 cancers detected, representing 13% of all people with a positive Hemoccult test.

The remainder of Newell's statement and comments and questions from subcommittee members will appear in the next issue of ***The Cancer Letter.***

RFPs AVAILABLE

Requests for proposal described here pertain to contracts planned for award by the National Cancer Institute, unless otherwise noted. Write to the Contracting Officer or Contract Specialist for copies of the RFP, citing the RFP number. Some listings will show the phone number of the Contract Specialist, who will respond to questions. Listings identify the respective sections of the Research, Contracts Branch which are issuing the RFPs. Their addresses, all followed by NIH, Bethesda, Md. 20014, are:

Biology & Diagnosis Section — Landow Building
Viral Oncology & Field Studies Section — Landow Building
Control & Rehabilitation Section — Blair Building
Carcinogenesis Section — Blair Building
Treatment Section — Blair Building
Office of the Director Section — Blair Building
Deadline date shown for each listing is the final day for receipt of the completed proposal unless otherwise indicated.

SOURCES SOUGHT

RFP NCI-CM-77155

Title: *Preparation and purification of viral components*

Deadline for submission of resumes: *March 25*

The Developmental Therapeutics Program of NCI knows of only one source which can perform the above mentioned work. The source is Pfizer, Inc., John L. Smith Memorial for Cancer Research, Maywood, N.J. Specifically, the work required is the production of primate type C RNA tumor viruses and putative human type C RNA tumor viruses.

The source must have adequate biohazard facilities, demonstrated technical capability and experience in producing primate type C RNA tumor viruses and putative human type C RNA tumor viruses; be able to produce 100 litres per week of good quality primate type C viruses (especially baboon endogenous virus); and have adequate facilities to concentrate the virus at least a thousand fold and package and distribute in ampules of 1 ml size.

The source shall provide quality control data on the virus giving virus count as determined by electron microscopy, protein concentration, 70S RNA content and the ability to produce good quality complementary DNA, adequate for molecular hybridization studies. The virus production should be optimal for the production of good quality 70S RNA and complementary DNA.

In addition, the virus should be useful in the isolation of viral glycoprotein gp 70. The organization shall be able to process the virus after 4-8 hour harvest or 24 hour harvest and be capable of shipping the virus on wet ice or dry ice, as required by the government. The source must have the capability of purifying viral antigens including reverse transcriptase, p12, p30 and gp70 and have animal facilities to make antisera with these antigens. The source must also have the capability to assay approximately 20 samples per month for p30 and p12 of baboon endogenous virus and p30 of other mammalian type-C RNA tumor viruses by competition radioimmunoassays.

If there are any other organizations that feel they have the demonstrated technical capability, experience, and adequate facilities to perform the aforementioned work, they are invited to submit a concise but complete resume that will describe completely capability to do the work. Information submitted must be pertinent and specific in the technical area under consideration. Unnecessarily elaborate brochures or other presentations of a general nature beyond that sufficient to provide the information called for herein are neither required nor desired.

Resumes must be submitted in 10 copies to:

Contracting Officer: Stephen R. Gane
Cancer Treatment
301-427-7463

CONTRACT AWARDS

Title: Evaluation of antitumor properties of STR eptovaricin
Contractor: New York State Dept. of Health, Roswell Park Div., $45,235.

Title: Therapy of patients with gastric carcinoma
Contractor: Sidney Farber Cancer Institute, $146,556.

Title: Study of the effects of nucleic acid preparations on the biological properties of mammary carcinomas
Contractor: Sloan-Kettering Institute, $87,100.

Title: Preparation and analysis of cell surface protein (CSP) fractions
Contractor: Massachusetts General Hospital, $57,480.

Title: Administrative support services for the Div. of Cancer Biology & Diagnosis, NCI
Contractor: Kappa Systems Inc., $426,228.

Title: Study of mammary gland responsiveness to multiple hormones
Contractor: Scripps Clinic & Research Foundation, $92,000.

Title: Isolation and characterization of mammary epithelial cell membranes
Contractor: Worcester Foundation for Experimental Biology, $60,000.

Title: Provide data research analyses for Breast Cancer Treatment Program
Contractor: Mason Research Institute, $65,800.

Title: Cell mediated immunity to rodent tumors
Contractor: Litton Bionetics, $259,608.

Title: Facility for supplying immune related cell lines
Contractor: Salk Institute, $68,600.

Title: Induction of malignant melanoma in guinea pigs
Contractor: Temple Univ., $129,795.

Title: Breast Cancer Detection Demonstration Program
Contractors: Pacific Health Research Institute, Honolulu, $235,364, and Univ. of Arizona, $161,239.

Title: Studies of type C RNA tumor viruses
Contractor: Microbiological Associates, $30,000.

Title: Studies on genetic and immunologic factors in viral leukemogenesis
Contractor: Albert Einstein College of Medicine, $262,139.

SOLE SOURCE NEGOTIATIONS

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

Title: Marek's Disease herpesvirus (MDV): An experimental model for viral transformation and oncogenesis
Contractor: Life Sciences Inc.

Title: Animal holding facility to support intramural research
Contractor: Flow Laboratories.

Title: Immunogenicity of "spontaneous" animal tumors
Contractor: Radiobiological Institute TNO, The Netherlands.

Title: Immunotherapy of squamous cell carcinoma of the lung treated by resection or radiotherapy
Contractor: Long Island Jewish-Hillside Medical Center.

Title: Purification of human tumor associated antigens
Contractor: Medical Research Foundation of Oregon

Title: Activated macrophages as immunotherapeutic agents
Contractor: Robert B. Brigham Hospital, Boston.

Title: Therapy of tumors in mice with tumor necrosis factor
Contractor: Sloan-Kettering Institute.

Title: Cells involved in the immune response to tumors
Contractor: Sloan-Kettering Institute.

Title: Randomized evaluation of C. parvum as an adjunct to chemotherapy in disseminated carcinoma of the breast
Contractor: Sloan-Kettering Institute.

Title: Immunotherapy of mouse tumors using immunoresponsive cells sensitized in vitro
Contractor: The Wistar Institute.

Title: Diagnostic application of human tumor or organ-associated antigens
Contractor: Sloan-Kettering Institute.

Title: Cells involved in the immune response to tumors
Contractor: Robert B. Brigham Hospital, Boston.

Title: Sulfolipids of M. tuberculosis and analogs in tumor studies
Contractor: National Jewish Hospital & Research Center, Denver.

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