THE CANCER RESEARCH EDUCATION CONTROL LETTER

P.O. BOX 2370 RESTON, VIRGINIA TELEPHONE 703-620-4646

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OMINOUS NOTE: MAGNUSON HINTS SENATE MAY CUT NCI BUDGET 5% UNDER PRESIDENT'S 1980 REQUEST

The Senate in years past could always be counted upon to add substantial sums for cancer research to lesser amounts approved by the House and recommended by the Administration. Members of the Senate HEW Appropriations Committee, headed by Warren Magnuson, would ask the NCI director when he appeared before them, "What

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In Brief

NEW CLINICAL ONCOLOGY RFP READY SOON; CCIRC, JOFTES AGREE ON FUNDING METHOD FOR SYMPOSIA

NEW CLINICAL Oncology Program RFP is in the final stages of preparation by NCI's Div. of Cancer Control & Rehabilitation and will be announced soon. The program will include contracts with up to 30 institutions and total about $10 million a year. . . . **JOHN HARTINGER**, who was deputy chief of NCI's Financial Management Branch under Earle Browning before moving to NIH headquarters, has returned to take over the branch. Browning retired last week. . . . **DOROTHY MACFARLANE** is the new executive secretary of the Clinical Cancer Investigation Review Committee, replacing the retired Clare White. Macfarlane, who received her MD from the Univ. of Maryland-Baltimore, has been assistant program director for clinical projects in the Cancer Therapy Evaluation Program. . . . **NCI'S FIRST** appearance before Congressman William Natcher in his role as chairman of the House HEW Appropriations Subcommittee will be March 12, 2 p.m. . . . **CCIRC MEMBERS**, Review & Referral Branch Chief David Joftes reached an understanding on funding of symposia sponsored by the committee. Joftes had insisted that no more could be funded through the chairman's grant; committee members complained that going through the regular NIH-DRG grant process would take too long. With the next symposium scheduled for September, 1980 in San Francisco on Hodgkin's disease, Joftes agreed to a special review by an ad hoc NCI committee and promised a decision within six weeks. Amount requested is under $35,000, thus will not need approval by the National Cancer Advisory Board. . . . **SIXTH UICC** training course in cancer research is scheduled for Sept. 9-21 at the Jackson Laboratory in Bar Harbor, Me. The course is intended for junior doctoral level scientists under age 30 in biology, medicine and veterinary medicine who wish to specialize in cancer research. There is no registration fee. Contact Hans Heiniger, UICC Course, Jackson Laboratory, Bar Harbor 04609. . . . **FOURTH ASIAN** Cancer Congress is scheduled for Dec. 4-8 in Bombay. All aspects of cancer will be on the program, with special attention to head and neck cancer. A few grants for room and board are available. Contact Charles Sherman, Dept. of Surgery, Univ. of Rochester Medical Center, Rochester, N.Y. 14642.

CENTERS, CONTRACTS WOULD TAKE MOST OF ANY CUT, FREDRICKSON TELLS MAGGIE

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would you do if we gave you another $50 million (or 75 or 100 million)?"

It was an ominous note, therefore, when Magnuson asked NCI Director Arthur Upton last week, "What would you cut out if we cut 5% from the budget request?"

A 5% cut from President Carter's request for the 1980 fiscal year, which is virtually the same amount appropriated for 1979, added to 8-10% inflation would mean a 13-15% reduction in research support.

Magnuson had put the same question to NIH Director Donald Fredrickson at his subcommittee's hearing on the NIH budget.

"That would depend on the intent of Congress," Fredrickson answered. "Would it be a temporary cut or one for the long range? Our first priority would be to protect investigator initiated research projects. Second, we would hope to maintain competing awards at the President's budget level (which would permit funding of about 20% of new and competing renewal grants throughout NIH). We must be able to take on some new research, and protect our ability to fund a certain number of renewals.

"We would make sure that intramural research shares in some of the cuts," Fredrickson continued. "It would be hard to get rid of people, but perhaps we could cut some supply purchases. We would have to reduce training. The amount of training we would cut would depend on whether this was a single reduction or one we would have over a long time.

"We could not reduce the clinical center 5%, nor the Library of Medicine. We would hope to take reductions in administrative costs. We would have to renegotiate many grants to reduce them, but this would require more administrative staff.

"Contracts and centers would suffer the most, that is clear. We would need to come to Congress for reprogramming authority. We simply couldn't cope with a 15% reduction (including inflation) without the ability to redirect some funds."

"If the committee said that each program—everyone—would have to take a 5% cut, wouldn't that make it easier for you?" Magnuson asked.

"That would not be the best way to do it," Fredrickson replied.

Magnuson commented that he has heard a lot of grumbling from NIH grantees over the amount of paperwork NIH requires of them. Fredrickson pointed out the recent change in grant applications which will make them shorter and simpler. But Magnuson said, "I'm tempted to ask all of you how much you spend a year for paper, and then cut that in half."

"We would just write smaller," Fredrickson cracked.

When it was Upton's turn, Magnuson hit him with the prospect of a 5% cut.

"Dr. Fredrickson laid out the proper strategy, I think," Upton said. "It would be the same for NCI. We would try to maintain investigator initiated research, but probably with a 2½% cut. There would be an 8-9% cut in contract research."

Upton said the goal should be to maintain a balanced program, "and support the most promising research through a variety of approaches, for the prevention, diagnosis, and treatment of cancer and continuing care of cancer patients."

Upton, an old hand now at explaining and defending NCI activities and the Cancer Program on Capitol Hill, summarized his seven page formal statement (submitted for the hearing record). He fielded questions from Magnuson and ranking Republican subcommittee member Richard Schweiker with articulate, informative responses:

Magnuson: Let's talk about centers. Do they communicate with each other?

Upton: Yes, through their association, the Centers Program, and directly with each other.

Magnuson: Some emphasize one thing or another. At the Hutchinson center (in his home state, Washington) they're doing some interesting things with bone marrow.

Upton: Dr. (E. Donnall) Thomas is doing outstanding work in bone marrow transplant.

Magnuson: Are all of them like the Hutchinson center in getting a great deal of private contributions?

Upton: That varies greatly. Virtually all (cancer centers) have some support from the federal government. Those that are getting substantial private support varies.

Magnuson: I happened to be in a hospital, not Hutchinson, recently and I asked if they routinely give Pap tests to women who come in for other reasons and they said no, unless they asked for it.

Upton: We have stressed the importance of the Pap test.

Magnuson: It should be automatic when women get regular examinations. It only costs $6.

Upton: Yes. It is estimated there will be 7500 deaths from cervical cancer this year.

Magnuson: I was asked to ask this question. Are you supporting clinical trials of interferon?

Upton: Yes, they are ongoing now. Interferon is a substance shed by virus infected cells which seem to interfere with tumor cell growth. Studies to date have been inconclusive. It is too early to make a judgment.

Schweiker: What are our objectives and goals in nutrition research?

Upton: We have two broad goals. One is to explore the role of dietary factors in affecting development of the disease. Second is the role of nutrition in supporting treatment of cancer patients.

Schweiker: We have heard that 40% of cancer in men

and 60% in women are nutrition related. We have recommended an increase in nutrition research for the prevention of cancer.

Upton: I agree the role of dietary and nutrition factors in the cause of the disease is very important. We have sought to increase our effort, and from 1976 to the 1980 budget, we have increased funding by 200%. The total program in 1980 for all nutrition related efforts will be $30 million. It was $18 million in 1978. The assertion that 40% or 60% is nutrition related is not one I am willing to accept as fact.

Schweiker: I have a question on the work you are doing with what we're told is a vitamin A-like substance (he was referring to vitamin A retinoids in chemoprevention). Why vitamin A-like, as opposed to vitamin A?

Upton: The problem is one of balancing the biological effect on the tumor against the unwanted side effects. In animal tests, the large doses of vitamin A required to have an effect on the tumor produces serious toxicity. We're experimenting with a vitamin A-like molecule which may not have that toxicity. We're just scratching the surface here. It appears that cell damage leading to tumor growth is subject to modification. We feel that research with retinoid acids may lead to finding that there are other substances which are also protective.

Excerpts from Upton's formal statement:

"High among our priorities in research aimed at cancer prevention are studies to identify cancer causing chemicals in the environment and to protect people against their effects. In the past year, the NCI's Bioassay Program has eliminated the backlog of reports on tests of some 207 chemicals in rats and mice. All the reports have been sent to the regulatory agencies. In all, 102 out of 247 chemicals tested thus far in animals have been found to be carcinogenic under the test conditions. NCI plans to continue such long term animal testing to identify other chemicals potentially hazardous to man. NCI plans also to refine the knowledge necessary for better interpretation of the tests in estimating the risks to man.

"Efforts are in progress to develop rapid and inexpensive laboratory tests of chemicals for cancer causing potential. Several such experimental methods have been developed, and this year we hope to evaluate their reliability. The new HEW National Toxicology Program will greatly improve coordination among federal agencies in identification and regulation of chemical hazards in the environment.

"Epidemiological studies to identify high risk populations and environmental carcinogens constitute another high priority line of investigation. These studies, which have pointed to the role of cigarettes, radiation, and occupational factors in causing cancer, are also attempting to sort out the relative importance of diet, drugs, hormones, genetic factors, and atmospheric pollutants in the development of cancer.

"A re-evaluation of the contribution of occupational exposure to cancer incidence—from the point of view of prevention—has suggested greater impact than previously suspected. . . . NCI has organized an Asbestos Awareness Program to alert exposed populations to the possible hazards of such exposure. . . .

"NCI has contributed data to the recent Surgeon General's Report on Smoking & Health. It also has developed and distributed various educational materials, including a Smoking Digest, and a Helping Smokers Quit Kit for use by physicians with patients.

"Research on the mechanisms of carcinogenesis is another important approach to cancer prevention. Through this approach, it has been found that certain vitamin A-like chemicals, known as retinoids, have a potential for inhibiting the development of epithelial cancers, such as cancer of the bladder. This has resulted in NCI support for clinical trials to determine the effectiveness of 13-cis-retinoic acid in preventing new lesions of the bladder in persons who have had early bladder cancers removed surgically.

"Other laboratory studies with the Rous sarcoma virus of chickens have identified the protein product that is believed to be responsible for transforming the infected cells into cancer cells. This protein is not a part of the virus itself but rather a product coded for by a viral gene. The identification of this transforming protein represents a milestone of far-reaching importance. It promises to explain the molecular mechanism of the cancer change, and it suggests that such gene products may ultimately be used to develop approaches to preventing, or even treating, cancer.

"To advance research on carcinogenesis and cancer prevention, additional epidemiologists, pathologists, and cancer biologists are needed. Recruitment of such scientists is possible as a result of congressional support for new positions and expert consultants. However, these scientists are in short supply, and we are working on training programs in cooperation with other NIH institutes.

"Detection of cancer before it has spread is important to successful management of the disease. In research to facilitate early detection, major effort is directed to identifying tumor markers, which may be antigens, enzymes, or hormones produced by tumors. Several such markers have been identified and are being evaluated for their usefulness in early detection.

"The ultimate criterion for the successful treatment of cancer is restoration of normal life expectancy and well being. Striking and dramatic improvements have been made in treating those types of cancer that occur predominantly before middle age, with the result that the overall death rate from cancer under age 45 has continued to fall since 1966.

"Much of this improvement results from advances in combined therapy since NCI began its drug development program in 1955. Acute childhood leukemia and advanced Hodgkin's disease are but two of about a dozen types of cancer that used to be invariably fatal but are now frequently curable with drugs

alone. The mortality rate from Hodgkin's disease, for example, has decreased 30% in the last five years. With the most advanced treatments now available the majority of patients enjoy long term survival, and a high probability of cure.

"These results have helped to establish principles now being applied in clinical trials of chemotherapy for the more common types of cancer in adults. The trials focus on the application of drug treatment in the post oeprative period in patients who are known to have a high risk of recurrence. This adjuvant chemotherapy should permit more conservative and less traumatic surgery, in addition to improving survival.

"One of our breast cancer studies, now in its fifth year, shows strikingly beneficial results in premenopausal women with advanced cancer.

"These women, who recieved adjuvant chemotherapy with a three drug combination (CMF) at the time of their initial surgery for breast cancer, have shown an 84% reduction in recurrence rate and a 65% reduction in mortality, in comparison with women not given adjuvant chemotherapy. Within another year we hope to see a trend in improved national survival rates for women with breast cancer, particularly in those under 50. We look upon this as a major advance of the new National Cancer Program.

"Other types of cancer in which the new treatments have produced encouraging results are testicular cancer, metastatic ovarian cancer, one form of lung cancer, and soft-tissue sarcoma. Clinical trials are under way using combinations of drugs, including several new drugs, surgery, radiation therapy, and immunotherapy. The trials also include hyperthermia, in which the temperature of the cancer cells is raised to increase their rate of destruction.

"Increased emphasis is being given to improvement in radiation therapy. NCI is expanding clinical trials of high energy radiation therapy using subatomic particles such as fast neutrons. This type of therapy may permit the intensification and more precise localization of the radiation effects in tumor tissues. Contracts to secure additional neutron-irradiation facilities and to conduct clinical trials are scheduled for award toward the end of the year.

"Through the Cancer Control Program we are continuing our efforts to alert community physicians to the most recent treatment techniques. Approaches to the upgrading of cancer treatment include clinical oncology programs for large and small communities, outreach programs associated with the Comprehensive Cancer Centers, and cancer control extensions of the clinical cooperative groups.

"NCI is directing increasing attention toward the control of cancer related pain. It supports studies of the occurrence of pain in cancer patients and multidisciplinary projects for the management of pain.

"The Diet, Nutrition & Cancer Program, which Congress established in 1974, has been expanded and relocated in the office of the director, to accelerate and coordinate its various activities throughout the five divisions of the institute.

"Studies are being made of a number of dietary factors suspected of influencing the development of cancer. Research is also being carried out to provide nutritional support during therapy and rehabilitation, since a nutritionally balanced patient has an improved chance of undergoing successful treatment and withstanding the rigors of the disease."

WE'RE IN FOR THE LONG HAUL: KENNEDY; NCI RELATES IMPROVEMENTS, PROBLEMS

There is a growing consensus, Sen. Edward Kennedy said this week in opening his oversight hearings on the National Cancer Program, that the time has come for a careful review of how the program has been conducted.

"I could not agree more. As we start now to plan cancer research for the 1980s, it is critical that we take into account our experience with cancer research in the 1970s. It is time now to ask what the Cancer Program has accomplished to date, where it has succeeded, where it has fallen short of expectations, and why," Kennedy said.

"The purpose of this hearing . . . is not to point fingers or to award medals . . . . Those of us who helped to initiate the National Cancer Program nine years ago—and I am proud to count myself among them—never expected quick answers or painless victories. We were and are in this battle for the long haul.

"I think the American people understand and support this point of view, and I think I speak for them in promising that our support for biomedical research on the prevention and cure of cancer will not rise and fall according to medical fashion or the vagaries of our economy. At the same time, however, I am also confident that the American people expect from the Congress and our research administrators competent, open minded and innovative management. We aim to make sure that in this critical research area they get what they want and deserve."

Marvin Schneiderman, former director of Field Studies & Statistics and now associate NCI director for science policy, was the leadoff witness. He offered an impressive statement and series of charts and tables which documented both encouraging and discouraging aspects of cancer incidence and mortality:

- Cancer incidence and mortality have continued to increase in the 1970s, incidence somewhat more rapidly than mortality—probably reflecting in part improvements in treatment and earlier diagnosis. Even when the smoking related lung cancers are removed from the incidence data, there were still increases in incidence from 1969 through 1976.
- Increases in older people have overwhelmed the decreases among younger persons so that overall

cancer mortality is increasing. It is the only major cause of death which has continued to rise from 1900 through 1976. But recently this rate of increase has begun to decline.

- There are some important decreases in cancer incidence and mortality, especially in persons under age 45. Decreases are due in part to reduced incidence of breast cancer in younger women, lung cancer in younger men, and childhood leukemias and Hodgkin's disease. Mortality data also reflect substantial improvements in treatment for childhood leukemia and Hodgkin's disease.
- Cancer mortality rates for all sites dropped for children through age 14 from 8.4 per 100,000 in 1950 to 5 in 1976; from 29.7 for age 15-44 to 20.1; but increased from 268.9 to 298.9 age 45-64; 691.1 to 800.6 age 65-74; and 1,195.6 to 1,285.7 for over age 75.
- Most but not all of the increased incidence of lung cancer is due to cigarette smoking. Subtracting lung cancer deaths related to cigarette smoking, total cancer mortality has been declining overall. Mortality has held steady for men while decreasing for women, whereas incidence of cancer, even when corrected for smoking related lung cancer, is continuing to rise for all groups.
- Both the incidence and mortality rates for lung cancer in men are leveling off or perhaps even decreasing up to age 65. This may be due in part to lower tars and nicotine in modern cigarettes.
- The trend in smoking related cancers in women is discouraging. Not only is lung cancer going up, but cancer of the larynx, esophagus and bladder as well.
- Cancer in several other sites continues to increase, both in incidence and mortality. Breast cancer mortality is down significantly in younger women, due primarily to improved treatment and detection. In women over age 50, the mortality rate continues to increase.
- Mortality rates of cancer of the colon, bladder and pancreas, as well as melanoma, are increasing. While there now seems to be a leveling off of pancreatic cancer in men, the incidence of the remainder of these cancers continues to go up "for reasons which we cannot yet describe."
- Other relatively common cancers have been decreasing in mortality, including cancer of the stomach, cervix, uterus and rectum.

"One special case is worth mentioning," Schneiderman said. "Cancer of the endometrium. This is a disease in which incidence was reported rising rapidly, a rise linked to the use of post menopausal estrogens. Publicity was given to this link through congressional hearings and publication in the professional literature. Within a year of this publicity, and coincident with FDA requiring warning package inserts, sales of these materials declined and the reported incidence of this disease also declined.

"This has important implications for both direct cancer prevention and for basic research in cancer induction, telling us that estrogens very likely are late stage carcinogens or promoters, and that the results of interfering with the action of a promoter can be seen in a very short time, even though cancer in general has a long latent period."

There is more to prevention of cancer than the regulation by government of carcinogens in the environment, workplace, and in what we eat and drink, Schneiderman concluded. "Truly effective prevention of cancer may mean that people will have to change the way they live, what they eat, drink, smoke, and perhaps even their sex lives. These are hard but not impossible things to change. . . . It is essential that we turn toward basic research to uncover why some people and families appear to be more susceptible than others, why cells change from normal to malignant, and what we can find in cells that have begun the progression toward cancer."

Kennedy suggested that the increased incidence of melanoma may be related in part to damage to the ozone layer as well as to increased exposure to sunshine, as Schneiderman had indicated. Schneiderman agreed that was possible, and that the two factors could have a "multiplier effect."

Kennedy asked if in Schneiderman's opinion a child born today would have a greater or lesser chance of dying of cancer, eventually, than one born 10 years ago. "A child born today will have a substantially less chance of dying of cancer, and a lesser chance of getting cancer," Schneiderman said.

"Are the major causes of cancer basically environmental, in the broad sense?" Kennedy asked.

"Yes. The often quoted figure of 80 to 85% is probably accurate, when you include diet, smoking, personal habits and sunshine exposure," Schneiderman answered.

Sen. Richard Schweiker, the Pennsylvania Republican who is in the last two years of what he says will be his last term, is the top ranking minority member of both the HEW Appropriations Subcommittee and Kennedy's Health & Scientific Research Subcommittee. He commented that public expectations "perhaps were raised too high in 1971" when the Cancer Act was passed, "but in any case they have not been fulfilled. Incidence is still increasing, and we have been disappointed by our inability to find a cure for many forms of the disease."

Schweiker, looking at one of Schneiderman's maps showing high incidence areas around the U.S. asked, "Who is following up the good leads we see on these maps?"

Schneiderman said NCI, state health departments, departments of epidemiology and preventive medicine in medical schools, labor unions, and industry were involved in followup studies. But, he said, only 25-30% of the important leads were being followed up, and the primary deterrent is a shortage of trained epidemiologists.

UPTON FORMALLY RECOGNIZES COLUMBIA AS 21ST COMPREHENSIVE CANCER CENTER

NCI Director Arthur Upton has formally announced the recognition of the Columbia Univ./Institute of Cancer Research in New York City as the 21st comprehensive cancer center (*The Cancer Letter*, Feb. 23). Paul Marks is director of the center and also is vice president for health sciences of the university. Richard Rifkind, professor of medicine and human genetics, is codirector.

New York City thus becomes the second in the nation with two comprehensive cancer centers. Memorial Sloan-Kettering is the other, and its president, Lewis Thomas, welcomed NCI's action. "My colleagues and I are enormously pleased that a comprehensive cancer center has been formally recognized at Columbia," Thomas said. "This add great strength to the scientific and clinical programs for cancer in New York City. We look forward to what I believe will be abundant opportunities to join forces in collaborative programs with our distinguished neighbor on West 168th St."

Current annual NCI support of the center's research and cancer control projects, including its center support grant, totals $8.9 million. Of this, $1.5 million is for center support, $3 million for research contracts, and $4.4 million for grants.

The center coordinates and facilitates research, education, and patient care in the health science facilities at Columbia and at its affiliates—Presbyterian, Roosevelt, St. Luke's and Harlem hospitals in New York and Overlook Hospital in Summit, N.J.

Sol Spiegelman is director of the Institute of Cancer Research and deputy director for basic science research of the cancer center. Rose Ruth Ellison is deputy director for clinical research and patient care. A 22-bed clinical cancer research facility is located in Presbyterian Hospital.

James Wolff is director for cancer control, and I. Bernard Weinstein is director for educational programs

Los Angeles is the only other city with two comprehensive cancer centers, at Univ. of Southern California and UCLA.

RFA ANNOUNCEMENTS

Applications responding to RFAs should be submitted on form PHS 398. The conventional presentation for grant applications should be utilized and the points identified under the review criteria must be fulfilled. The title of the RFA must be typed in bold letters accross the top of the face page of the application.

The original and six copies of the application should be sent or delivered to Application Receipt, Div. of Research Grants, NIH, Room 240, Westwood Bldg., Bethesda, Md. 20014.

A brief covering letter should accompany the application indicating that it is in response to the particular RFA. A copy of the covering letter should be sent to the NCI program director named in the RFA announcement.

(The following four RFAs appeared in *The Cancer Letter* Nov. 3 and Nov. 10, 1978, but have been reissued by the Div. of Cancer Control & Rehabilitation due to correction of errors.)

Identification and evaluation of counseling techniques for cancer patients

The Div. of Cancer Control & Rehabilitation of NCI is inviting grant applications for identifying and evaluating effectiveness of selected counseling techniques in helping cancer patients cope with the psychological and emotional problems commonly associated with the diagnosis and treatment of cancer.

For the purpose of this RFA, counseling techniques can be defined as those methods of therapeutic intervention which seek to aid, guide, and support the cancer patient in better understanding, confronting and coping with the emotional and functional problems encountered as a result of the disease and its treatment. The primary recipient of the counseling in this study should be the patient.

Applicants should address the following points, although support is not limited to these subjects:

1. Identification and description of the patient population to be studied. Patients should be subdivided into groups according to such common characteristics as age, stage of disease, and organ site. Rationale for sample selection should be explained. Control groups are recommended.

2. Identification of specific psychological problems that require counseling. The problems selected for study should include those which are commonly associated with a majority of cancer patients.

3. Analysis of the relations of specific emotional and psychological problems to specific counseling techniques. The investigator should clarify the rationale for matching a given counseling technique to a given psychological problem. The theoretical basis for the counseling should be fully articulated. Enumerate any special skills, qualifications, or experience requisite for the counselor or professional giving the counseling.

4. The methodology for testing and evaluating selected counseling techniques, as well as the method of data collection and data analysis. The investigator should describe the measures for assessing and quantifying the benefit of the identified counseling techniques to the patient or patient group.

5. Establishment of a timetable for accomplishing objectives and presentation of findings.

Each prospective applicant should submit a letter of intent containing a brief description of the proposed project. Next due date for letters of intent is June 1, 1979. For applications, the next due date is July 1, 1979.

Letters of intent regarding this RFA should be addressed to Lawrence Burke, Program Director for Rehabilitation, NCI, Room 617, Blair Bldg., 8300 Colesville Rd., Silver Spring, Md. 20910.

"Patterns of care" in oncology

DCCR is inviting grant applications to determine existing patterns and standards for the management of the more common tumor types.

DCCR is currently funding a study entitled "Clinical and Research Radiation Therapy in Cancer Care" which is popularly referred to as the "Patterns of Care Study," which includes an analysis of current patterns of radiation therapy. The purpose of this RFA is to determine current patterns of management for one or more of the common malignancies, using the well developed model of the American College of Radiology in their "Patterns of Care Study" or other appropriate strategies.

Proposals should be limited to what could reasonably be accomplished on a regional basis (area that provides statistically valid results) and regarded as a "pilot" study for potential expansion to a national program. The applicant should select one or a group of cancers diagnosed and treated within a medical specialty or managed primarily by one specialty. The application shall define the scope of the assessment in terms of specialties and interventions involved and the rationale for the selection.

Send letters of intent to Harry Handelsman, Program Director for Clinical Cooperative Groups, Div. of Cancer Control & Rehabilitation, NCI, Room 616, Blair Bldg., 8300 Colesville Rd., Silver Spring, Md. 20910.

The role of nutrition in the rehabilitation of cancer patients

DCCR is inviting grant applications to study effects of specially designed nutrition programs on cancer rehabilitation.

Primary objective of this RFA is to encourage nutritional research which will lead to practical and effective methods of improving cancer rehabilitation. The research may address any of the various components of nutrition as it relates to:

1. Prevention of impairment secondary to the disease and/or treatment.
2. The earlier restoration of lost physical and psychological function secondary to cancer treatment.
3. Regimens for host maintenance during the course of treatment.
4. Altering states of disability through nutritional manipulation.
5. Effect of nutrition on the psychological state of the cancer patient.

This list is only suggestive and not meant to be either restrictive or exhaustive.

Nutrition should not be considered as synonymous with diet. Investigations of dietary practices alone are not a proper submission for this RFA.

Applicants should address all of the following points:

1. Identification and description of the patient population to be studied. A description should include the sample characteristics of each study group and the selection rationale.
2. Use of control groups is recommended. Diet management programs and hyperalimentation studies must be related to a specific cancer impairment and should investigate specific rehabilitation aspects.
3. Identification of specific impairments specifically resulting from cancer and/or its treatment.
4. The rationale for selecting a particular nutritional program and how its contribution to the rehabilitation of the patient is to be measured.
5. Description of the methodology or plan of study. This statement should include a clear presentation of the problem, study design, method of data collection and data analysis, a timetable (or milestone chart) for accomplishing objectives, and discussion of how the findings are to be presented.

Send letters of intent to Burke at his address as above.

Program for improved care of cancer patients with terminal disease

DCCR is inviting grant applications to implement and evaluate innovative projects for the improved care of cancer patients with terminal disease.

Proposals may select a single aspect of terminal care in cancer that needs further study or addresses terminal cancer care more comprehensively. Establishing effective methods for better understanding and ameliorating specific problems common to terminal disease are an objective of this RFA.

Investigators responding to this RFA should have access to terminal cancer patients and also have had training in oncology and considerable experience in the clinical management of the terminally ill cancer patient. The terminally ill patient is defined in this RFA as that cancer patient who has received the maximum definitive treatment, but has not received a remission or significant eradication of his/her disease and whose medical doctor indicates that life expectancy is limited to a few months.

Applicants should present a program for implementing and evaluating original methods and techniques for improved terminal care including, but not limited to, the following:

1. Description of the proposed project should include: modes of treatment and care available to the study population; statement of the problem in the particular population and environment; implications of proposed study in terms of how it could alter present patterns of terminal cancer care for patients; and review of research studies directed at identifying better means of managing clinical symptom states common to end stage disease in cancer.

2. Identification of specific problems in terminal illness which warrant new study.

3. Description of proposed study (method). Areas that might be explored could be: the best location for the treatment of terminal patients, the relationship of equipment to facilities for optimal care, the relationship of facilities relating to the type of care, the cost of care, the quality of care, improved means for providing pain relief, the role of health care support staff in relation to patient and family, methods and techniques effective for educating and communicating with the patient and family.

4. Outline of the research design, data collection and data analysis and evaluation, including protocols for implementation. This might include the sampling methods for accessing patients into the study, methods of assessing effectiveness of the proposed improved care, and the description of comparison and/or control groups to be accessed. Randomized trials for symptom relief should be considered.

5. Establishment of a timetable for carrying out the study—data collection, collation and analysis, and presentation of findings in camera ready copy. This should be included in the proposal.

6. Statement of clear objectives and the means to evaluate. This must be included in the proposal.

The following will not be considered under the scope of this RFA:

1. Duplication of ongoing Hospice demonstration programs which are currently funded under NCI contracts.
2. Funding for the provision of service only.
3. Funding for construction and/or renovation.
4. Evaluation of existing projects.
5. Development of a new facility or expansion of an existing terminal care facility.

Send letters of intent to Burke.

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. Address requests to the contract officer or specialist named, NCI Research Contracts Branch, the appropriate section, as follows:

Biology & Diagnosis Section and Viral Oncology & Field Studies Section—Landow Building, Bethesda, Md. 20014; Control & Rehabilitation Section, Carcinogenesis Section, Treatment Section, Office of the Director Section—Blair Building, Silver Spring, Md. 20910.

Deadline date shown for each listing is the final day for receipt of the completed proposal unless otherwise indicated

RFP NCI-CM-97286

Title: *Operation of an animal serological virus surveillance laboratory*

Deadline: *Approximately March 28*

The successful offeror will operate virus serum diagnostic laboratories for NCI. Serum samples are submitted by contract animal suppliers and testing laboratories. The importance of these services cannot be overemphasized since NCI will use these profiles to evaluate the technical ability of individual rodent suppliers.

The mission of this contract will be to operate and maintain an animal serological virus surveillance laboratory. Serum samples will be submitted from animal suppliers and testing laboratories. The profile will include from four to nine viruses depending on the animal being tested. It is expected that approximately 40,200 virus tests will be performed annually. The experience and expertise of key personnel and the staff in areas of viral serology must be documented. Ability to process serological samples and report results promptly should be demonstrated. A "turnaround" time of 14 days or less following receipt of samples is considered essential.

Proposals must demonstrate that facilities and equipment are adequate for the performance of this contract. It is anticipated that award will be for three years, incrementally funded, periods of performance.

Contracting Officer: Daniel Abbott
Cancer Treatment
301-427-8125

RFP NCI-CM-97238-18

Title: *Hematology support care*

Deadline: *Approximately May 21*

Serum repository services involving over 59,000 samples and some in vitro assays on platelet migration inhibition tests. Because of the nature of the specimens involved, the contractor must be within 50 miles from NIH so that daily pickups and delivery services for samples is possible. The contractor is also required to provide a computer program for sample retrieval for identification, volume, and localization. In addition, the computer capabilities must provide data verification and updating routines. It is anticipated that the contract will be awarded for three years and should provide for the accommodation of 20,000 additional samples.

Contracting Officer: Helen Lee
Cancer Treatment
301-427-8125

The Cancer Letter —*Editor* JERRY D. BOYD

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